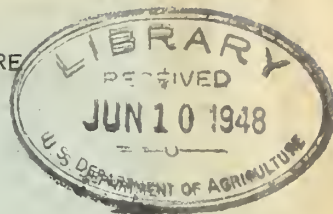


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UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF AGRICULTURAL ECONOMICS



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CHARTS RELATING TO
THE 1929 AGRICULTURAL OUTLOOK

PART I. FARM CROPS

---O---

Washington, D. C.,
January, 1929.

These charts have been selected to aid extension workers in presenting the Agricultural Outlook for 1929. Copies of this collection will be furnished to extension specialists upon request.

A brief interpretation of each chart is included. This interpretation covers the principal points brought out in each chart and can be used as a guide by workers not entirely familiar with chart reading.

Wall charts of any of the charts in this collection may be purchased for extension uses. Size 30x40 inches, heavy paper, 75 cents each; mounted on linen, \$1.25 each. Address orders with check payable to Disbursing Clerk to Bureau of Agricultural Economics, United States Department of Agriculture, Washington, D. C.

Part II includes charts dealing with livestock and products.

CONTENTS

FARM CROPS

Corn

1. Farm price of corn and index of retail prices of commodities farmers buy. 1910-1928
2. Percentage of total corn crop produced in geographic divisions. 1909-1928

Oats

1. Oats: Acreage, production, yield and farm price. 1866-1928
2. Farm price of oats and index of retail prices of commodities farmers buy. 1910-1928
3. Production and carryover of oats and corn in tons and adjusted price of oats per bushel. 1910-1928

Wheat

1. Wheat production in leading countries. 1891-1928
2. Wheat: World and United States production and U. S. adjusted price. 1895-1928
3. Farm price of wheat and index of retail prices of commodities farmers buy. 1910-1928
4. Prices of wheat by classes. 1921-1928
5. Hard red spring wheat and durum wheat production, exports and Minneapolis price. 1921-1928
6. Hard red winter wheat and production, exports and Kansas City price. 1921-1928.
7. Soft red winter wheat production, exports and St. Louis price. 1921-1928
8. Wheat: Average price at Minneapolis, Kansas City and Winnipeg and margin of Kansas City and Minneapolis over Winnipeg and imports 1921-1928.

Flax

1. Acreage, yield, production, imports, exports and farm price of flax. 1866-1928
2. Flaxseed: Total production in Argentina, Canada and United States and U. S. adjusted farm price. 1921-1928
3. Relation of flax production in Argentina, U. S. and Canada to average Minneapolis No. 1 flax price from September to November.

Rye

1. Acreage, yield, production and farm price. 1866-1928

Barley

1. Acreage, yield, production and farm price. 1866-1928
2. World and U. S. barley and corn supply and U. S. price 1920-1928

Cotton

1. Cotton: Acreage, yield, production and price. 1869-1928
2. Cotton production in U. S., Egypt and India. 1891-1928
3. Farm price of cotton and index of retail prices of commodities farmers buy. 1910-1928
4. Relation between supply of American cotton and average price spot cotton at New Orleans. 1920-1927
5. Cotton taken by U. S. mills. Crop years 1876-1927
6. Relation of average yearly price of cotton at New Orleans and world carryover of American cotton at end of season.
7. Prices of spot cotton at New Orleans and index of cotton mill consumption.

Tobacco

1. Production and consumption of Burley tobacco. 1913-1928
2. Burley tobacco production, carryover and adjusted farm price. 1913-1928
3. Acreage and production of flue-cured tobacco. 1909-1928
4. Production and price of flue-cured tobacco. 1909-1928
5. Exports of bright flue-cured tobacco. 1921-1927
6. Acreage and production of dark-fired tobacco. 1909-1928
7. Exports of Virginia dark fire cured tobacco. 1923-1928
8. Leaf tobacco used by domestic manufacturers. 1897-1927
9. Leaf tobacco held by manufacturers and dealers. 1913-1928
10. U. S. exports of leaf tobacco. 1914-1927
11. Consumption of cigarettes and population. 1900-1927

Potatoes

1. Acreage, yield, production and population. 1869-1928
2. Factors affecting acreage of potatoes
3. Farm price of potatoes and index of retail prices of commodities farmers buy. 1910-1928
4. Factors affecting the yearly farm price of potatoes.
5. All potatoes: production and farm prices. 1921-1928
6. Early and second early potatoes: production and prices to growers 1921-1928.

Potatoes (cont'd)

7. Weekly summary of carload shipments of potatoes by early areas, seasons 1922-1924
8. Weekly summary of carload shipments of potatoes by late states, seasons 1922-1924

Peaches

1. Peaches: Yearly production and number of trees by Census periods. 1900-1928
2. Relative number of young and old peach trees in various States. 1925
3. Peach production and prices to producers. 1910-1928
4. Peach production in Georgia and the Carolinas and prices to Georgia producers. 1910-1928
5. Relation of size of peach crop in Georgia and Carolinas and peach prices to Georgia producers.
6. Carload shipments of Southern peaches. 1920-1928
7. Weekly carload shipments of peaches, early States, 1926
8. Relation of daily supply of peaches at New York and returns for Elberta peaches.
9. Net returns to growers for Georgia peaches consigned to New York City. 1926

Apples

1. Apple production, exports and adjusted farm price 1900-1928
2. Apple trees: Number in each geographical division. 1910-1920-1925
3. Apples: Commercial production by regions (box and bbl.) 1918-1928
4. Total production of apples by geographical divisions - 5 year average. 1909-1927
5. Apple price-supply curve and apple value-supply curve.
6. Apple trees in commercial orchards. Percentage in each age group-selected States. 1928
7. Apple trees: Number in New York commercial orchards, selected varieties by age groups. January 1, 1928
8. Seasonal prices of apples, by varieties. 1922-28.

Sugar

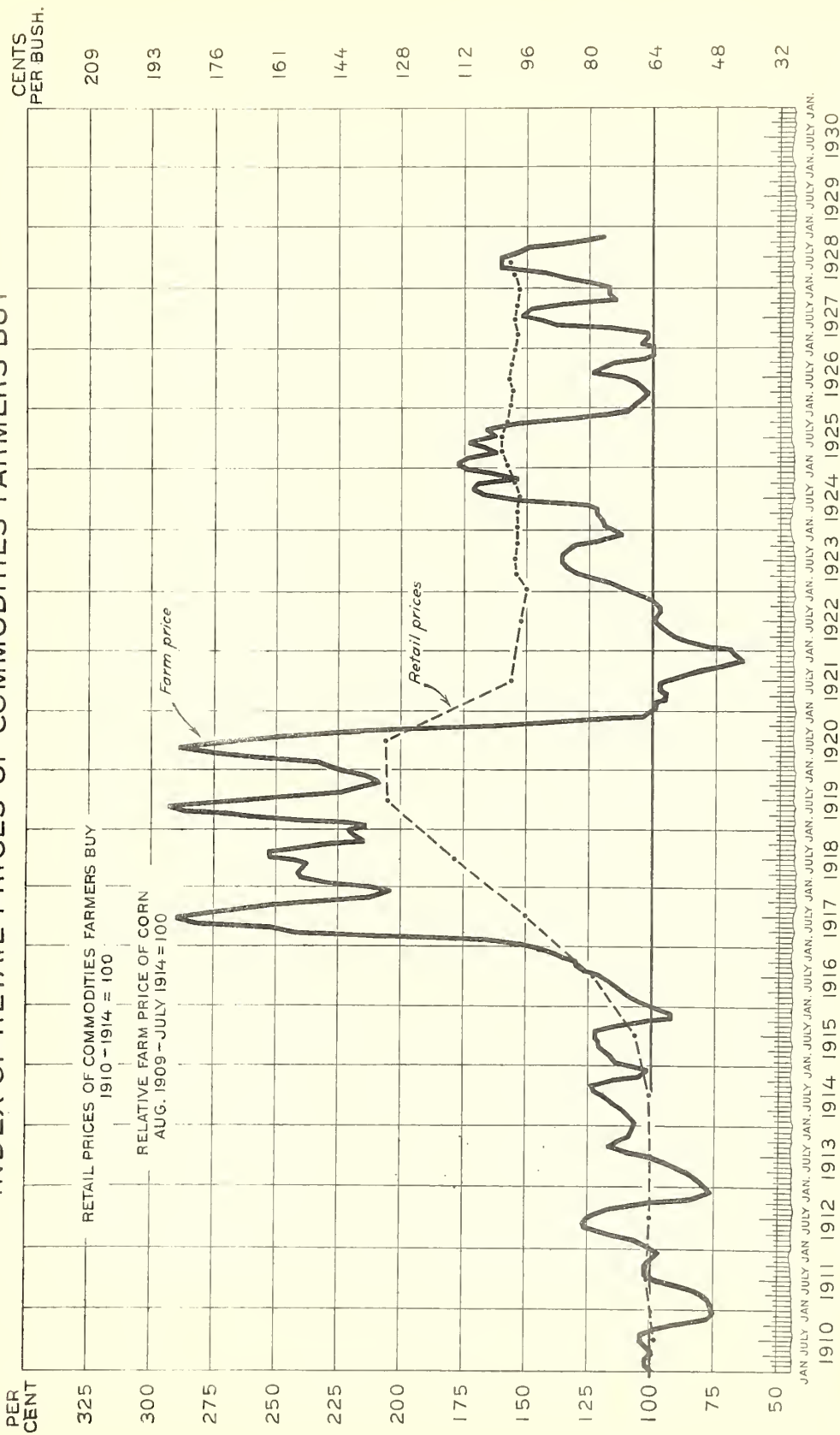
1. Cane and beet sugar production, Continental United States 1823-1928
2. World production of sugar and U. S. adjusted price of sugar beets. 1920-1928

General

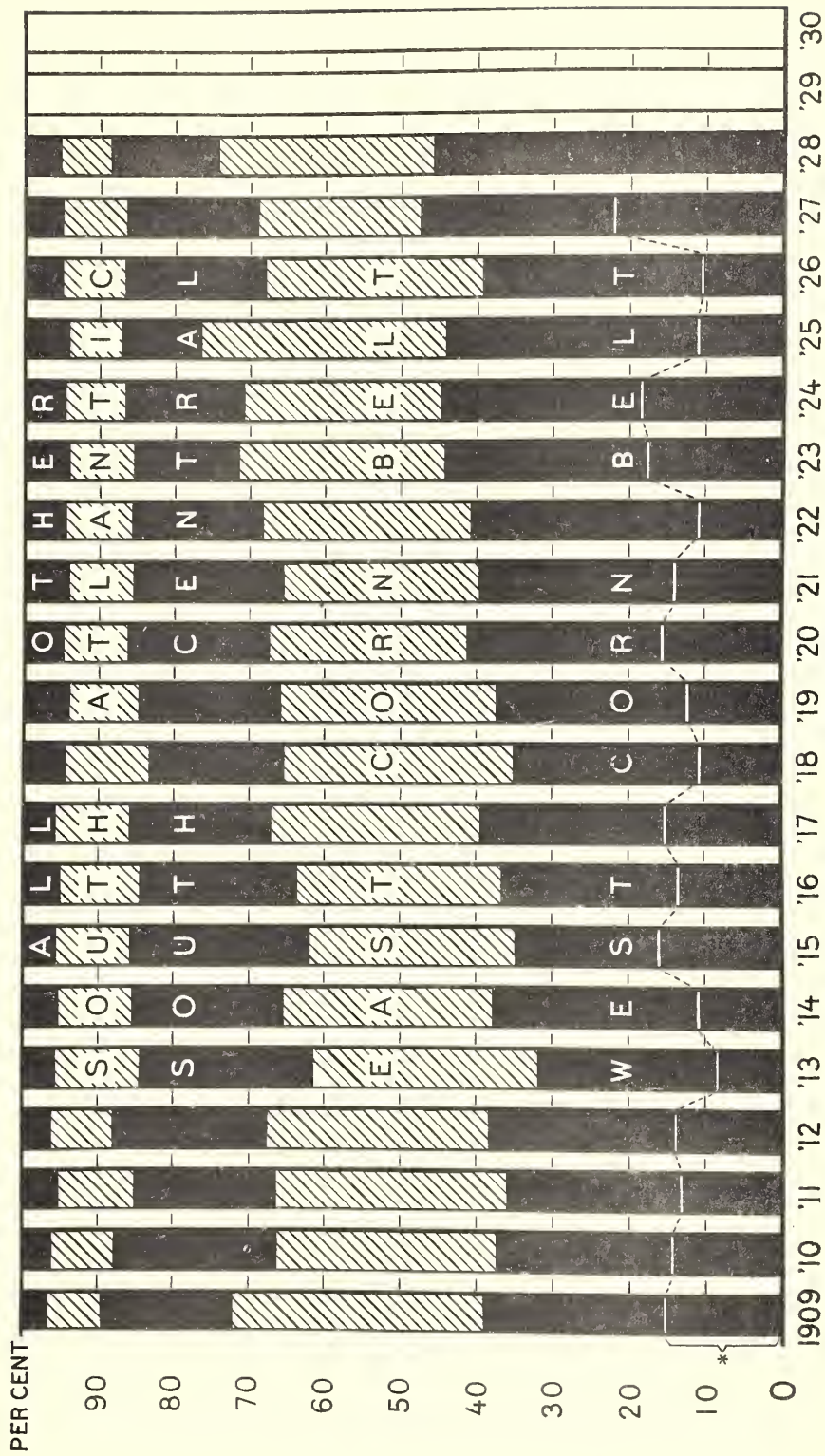
1. Index numbers of prices received by farmers and prices paid by farmers. 1910-1928
2. Indexes of payrolls in manufacturing industries and industrial production. 1920-1928
3. Supply of farm labor and industrial employment. 1919-1928.

Interpretations and explanations of charts.

FARM PRICES OF CORN AND INDEX OF RETAIL PRICES OF COMMODITIES FARMERS BUY

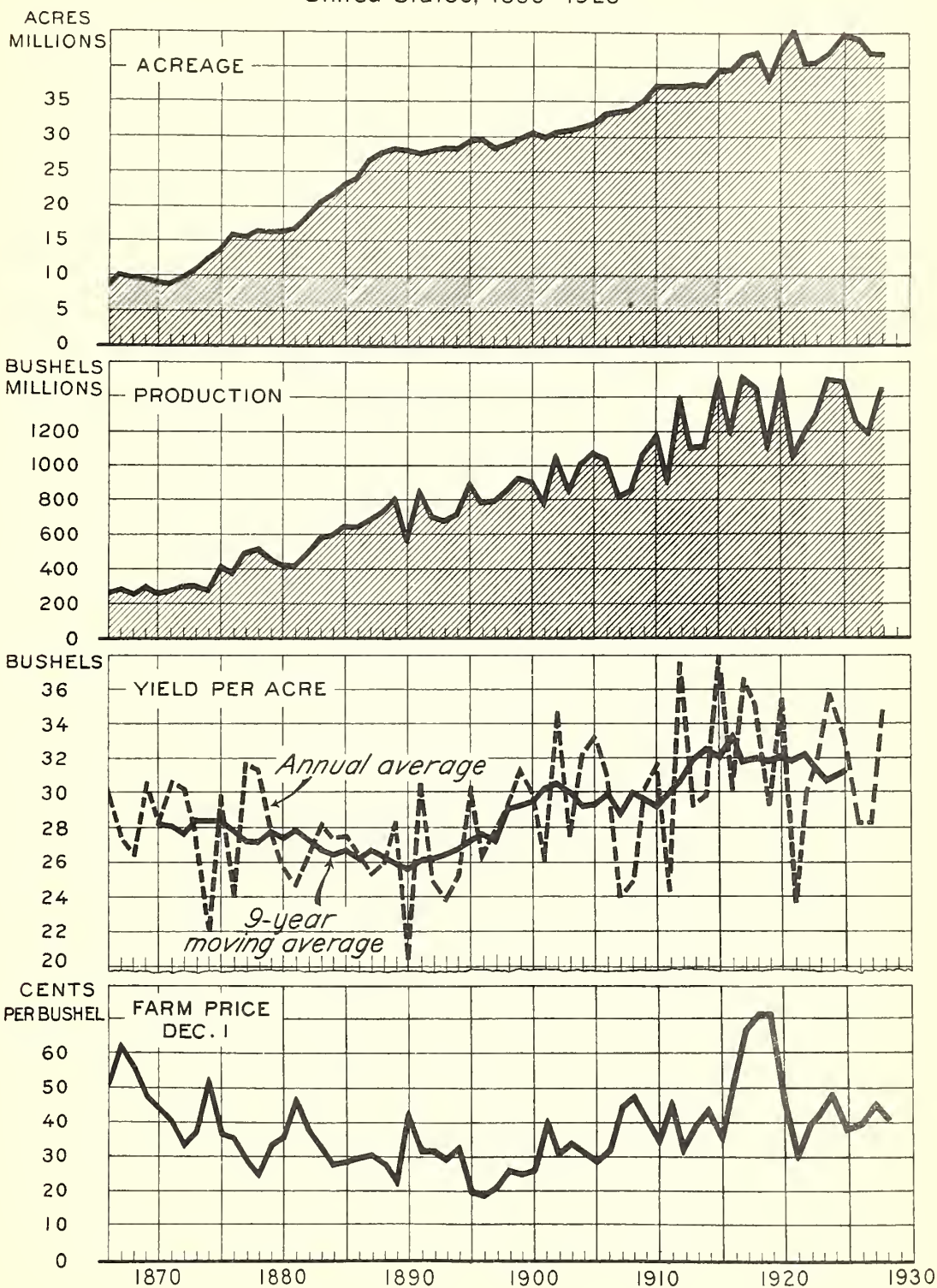


PERCENTAGE OF TOTAL CORN CROP PRODUCED IN GEOGRAPHIC DIVISIONS 1909-1928

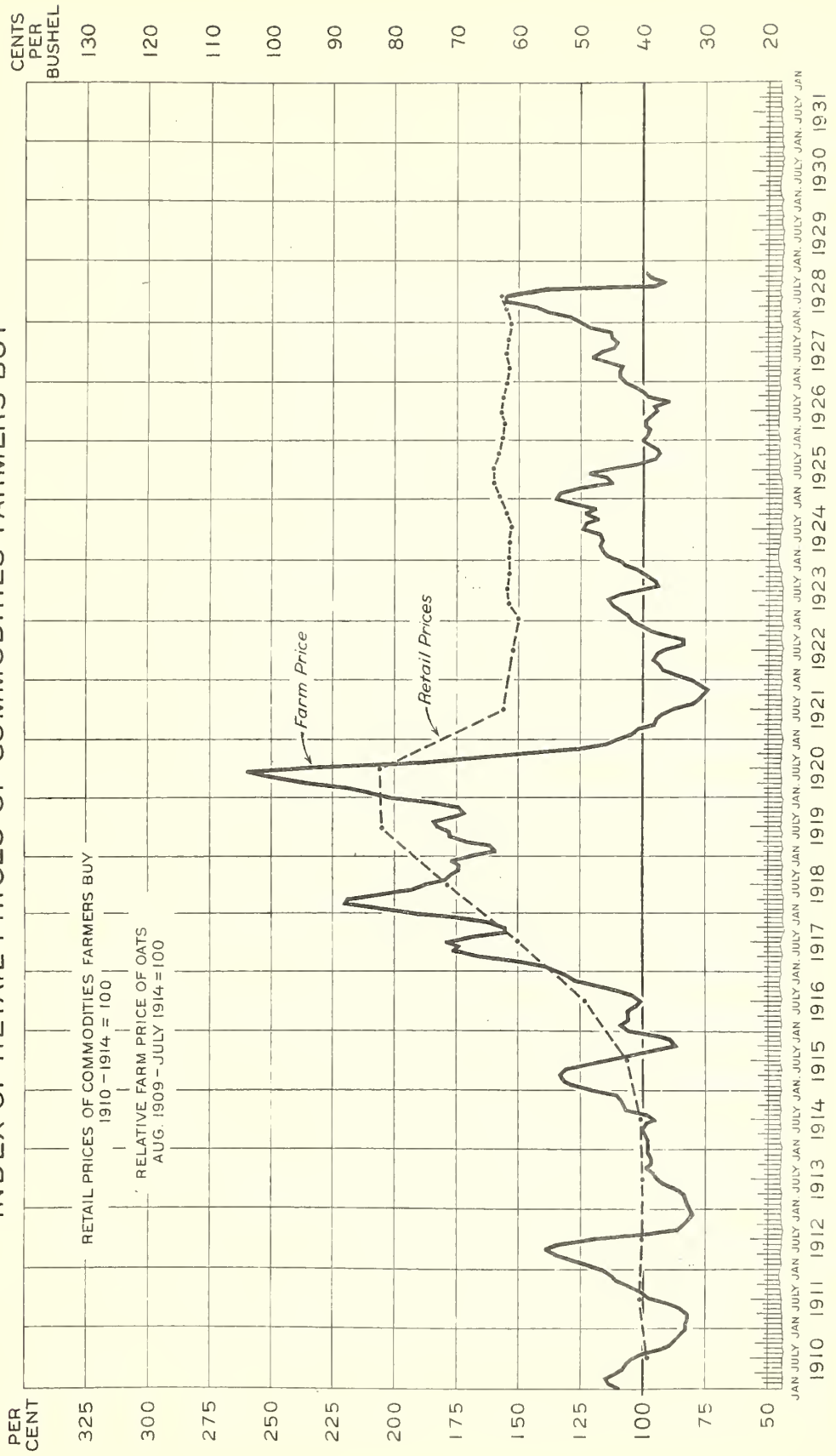


* KANSAS, NEBRASKA, SOUTH DAKOTA

OATS: ACREAGE, PRODUCTION, ACRE YIELD, AND FARM PRICE United States, 1866-1928

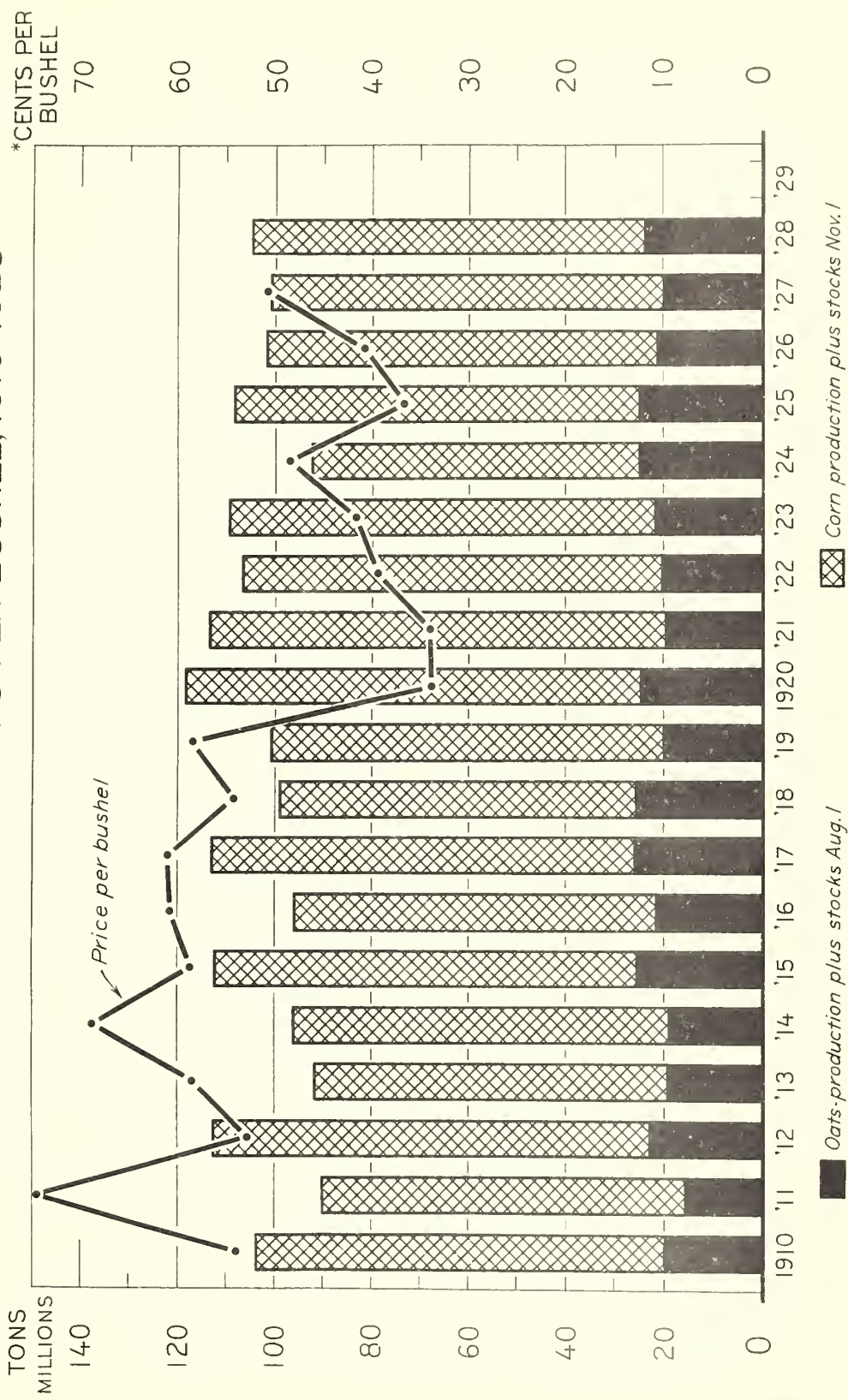


FARM PRICES OF OATS AND



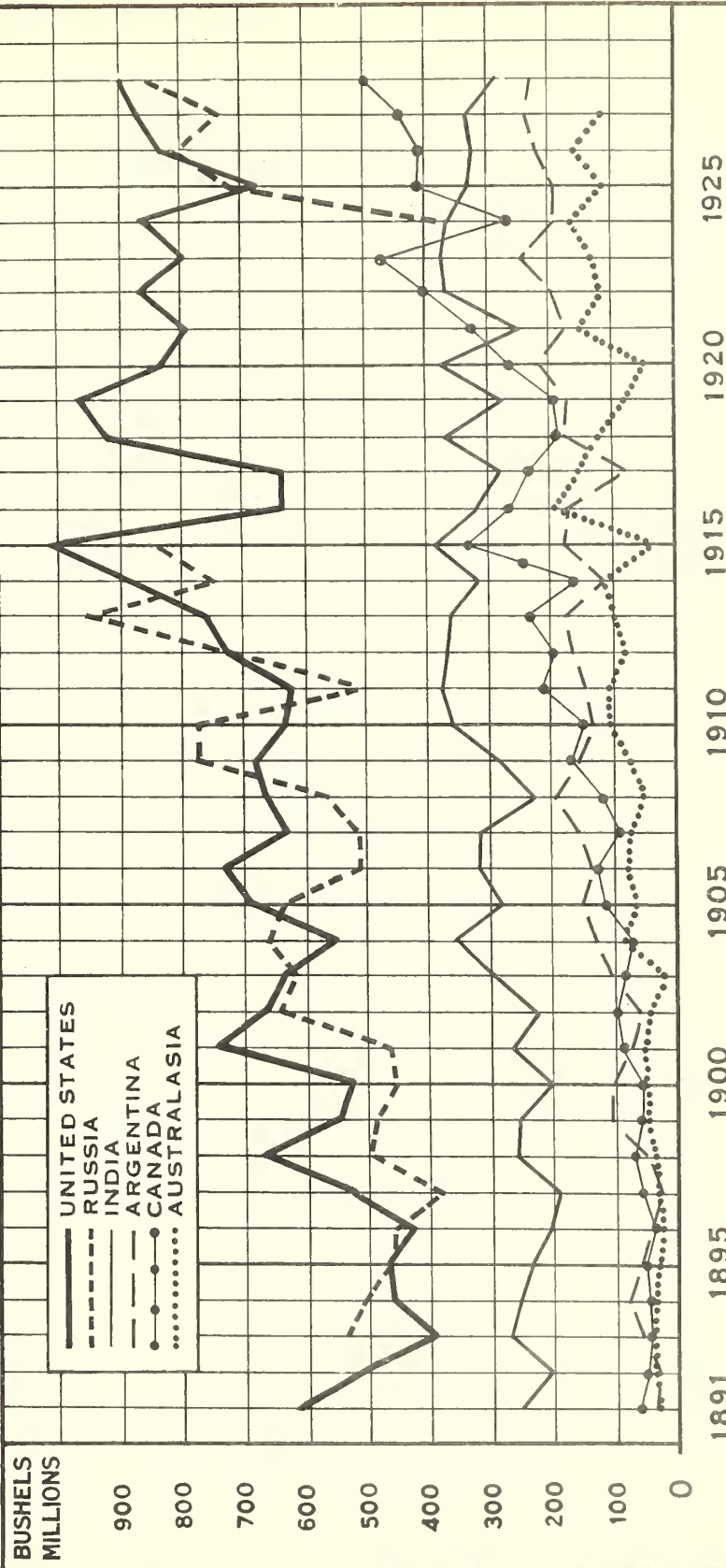
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PRODUCTION AND CARRYOVER OF OATS AND CORN IN TONS AND ADJUSTED PRICE OF OATS PER BUSHEL, 1910-1928

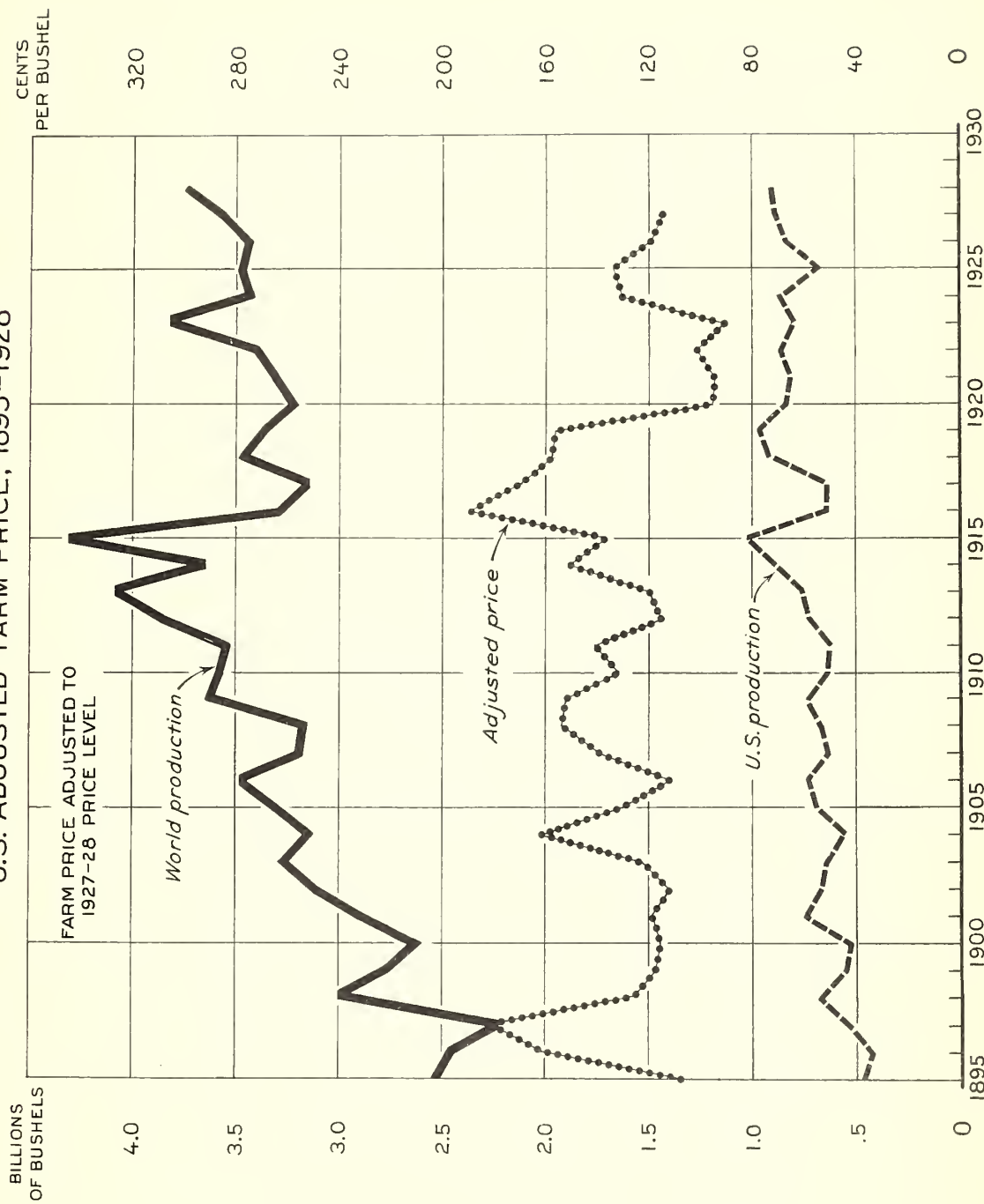


* ADJUSTED OAT PRICES TO 1927 BASIS

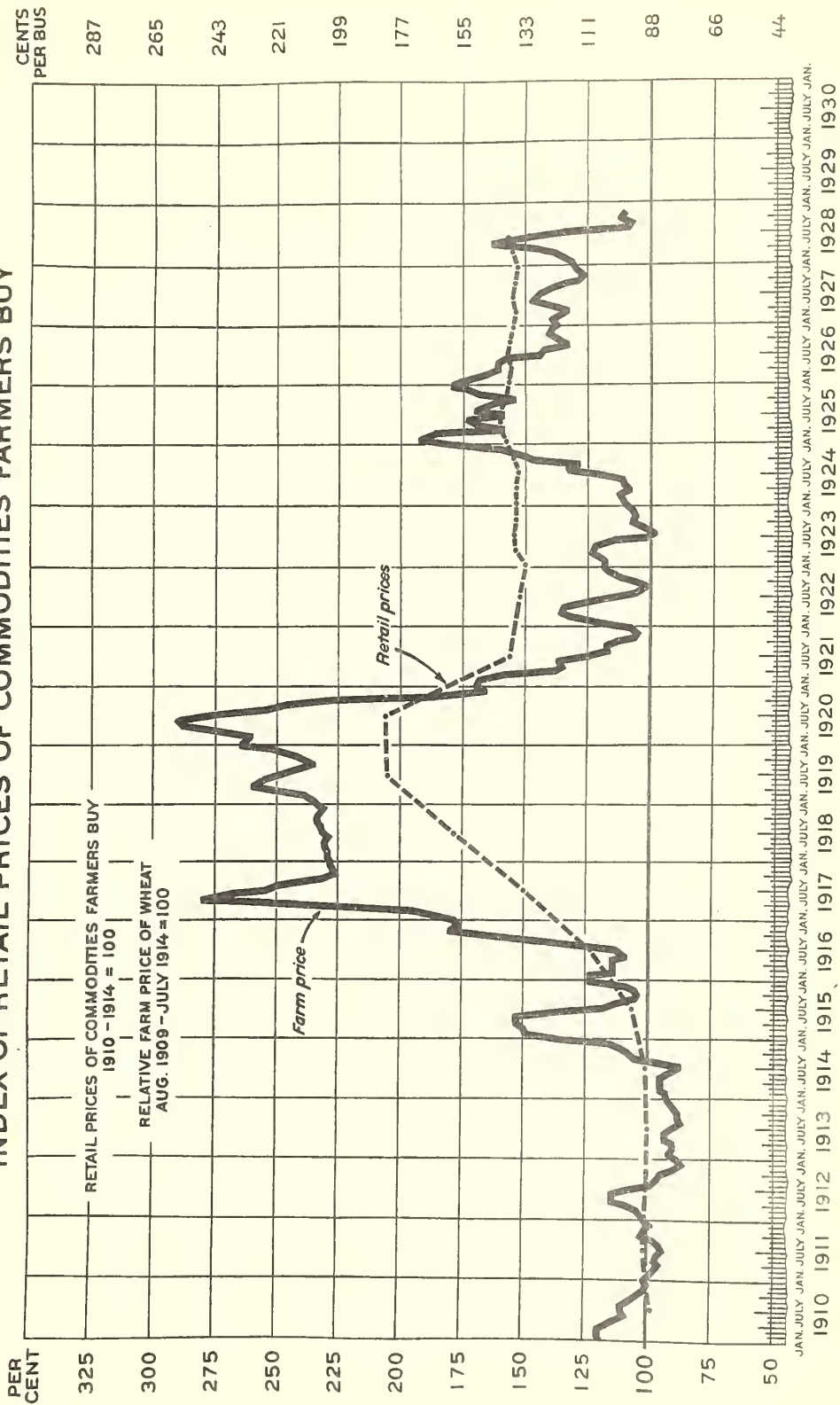
WHEAT PRODUCTION LEADING COUNTRIES, 1891-1928 (RUSSIA, 1893-1915 AND 1924-1927)



WHEAT PRODUCTION - WORLD AND UNITED STATES AND U.S. ADJUSTED FARM PRICE, 1895-1928

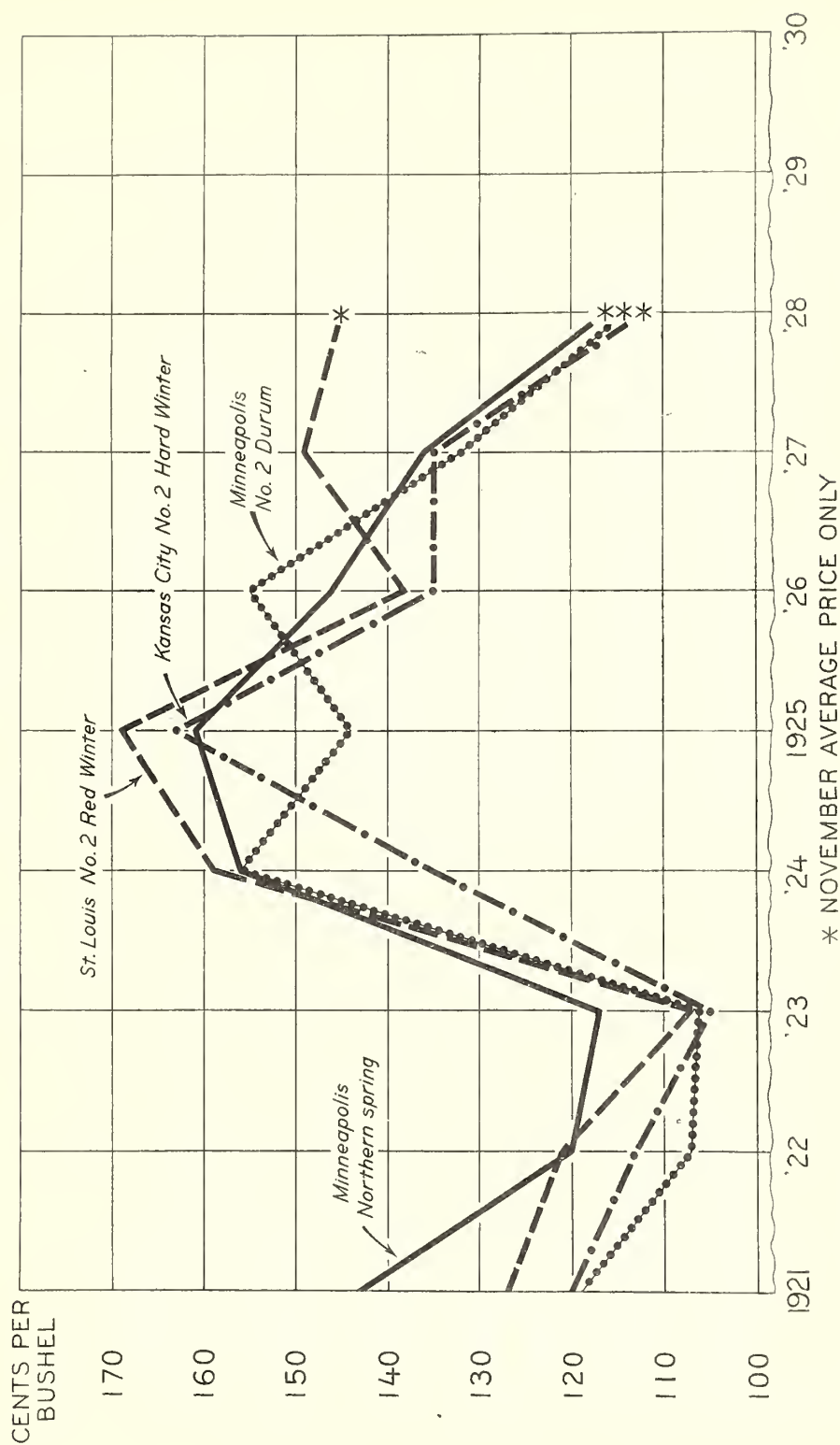


FARM PRICES OF WHEAT

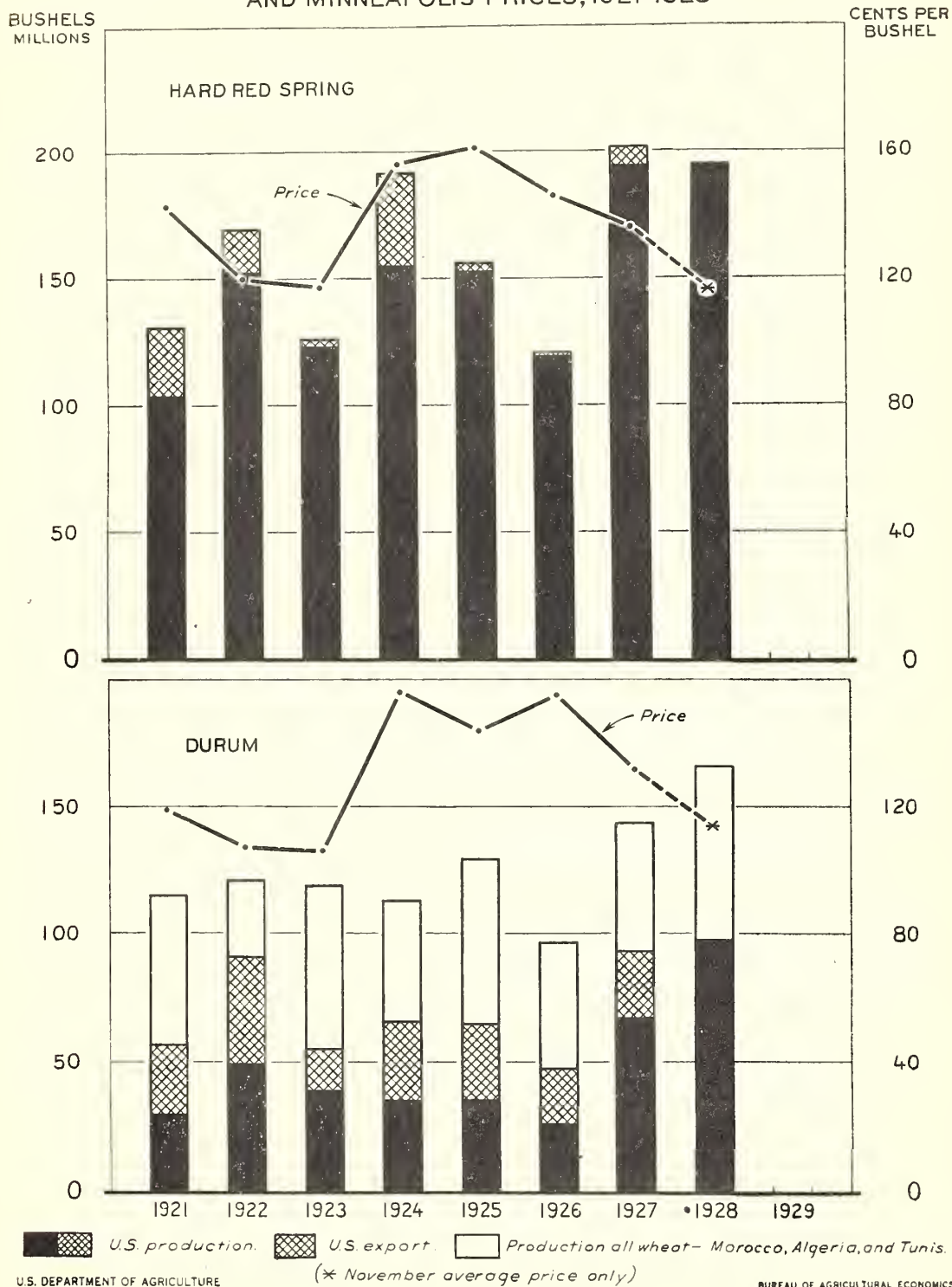




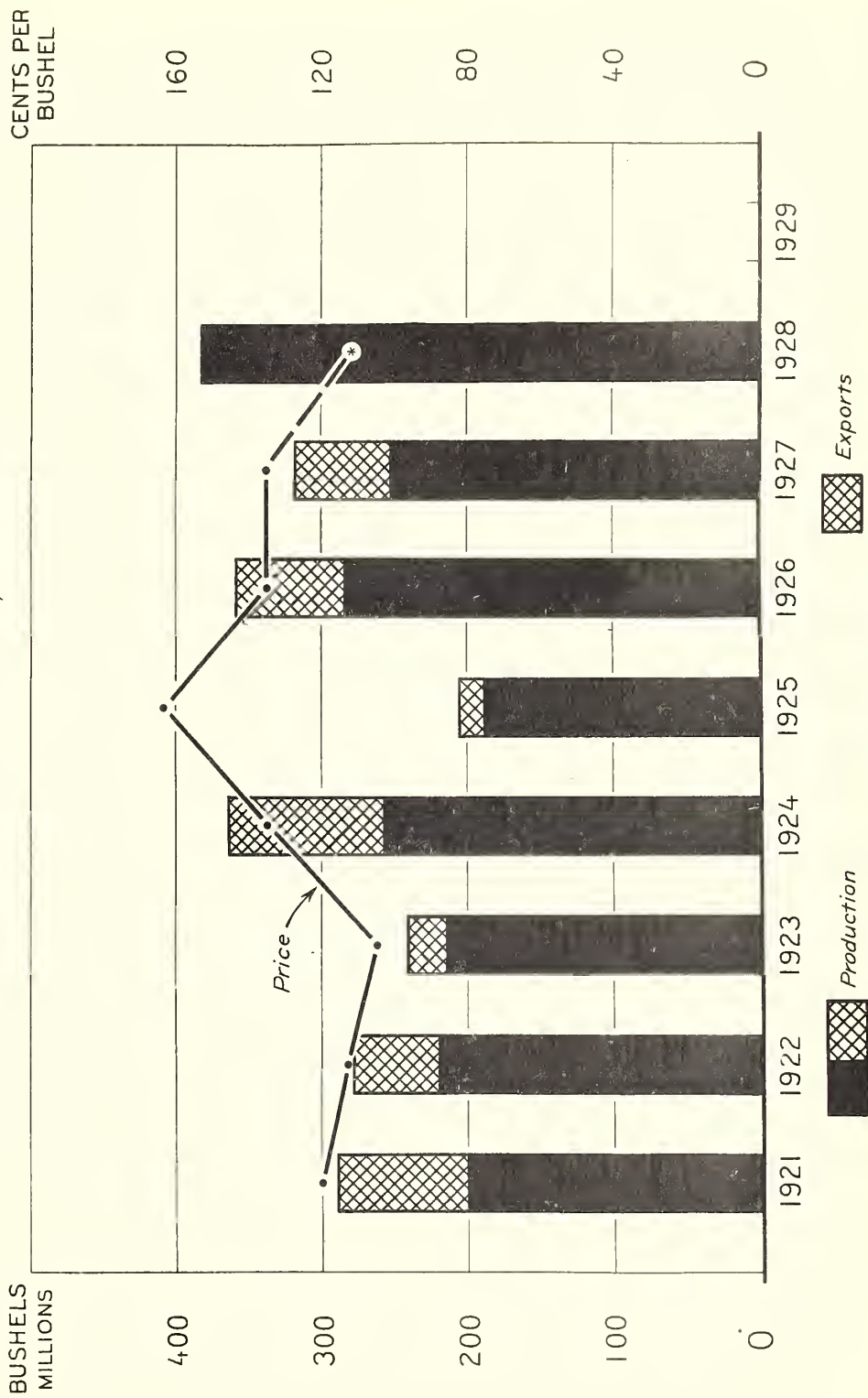
PRICES OF WHEAT BY CLASSES, 1921-1928



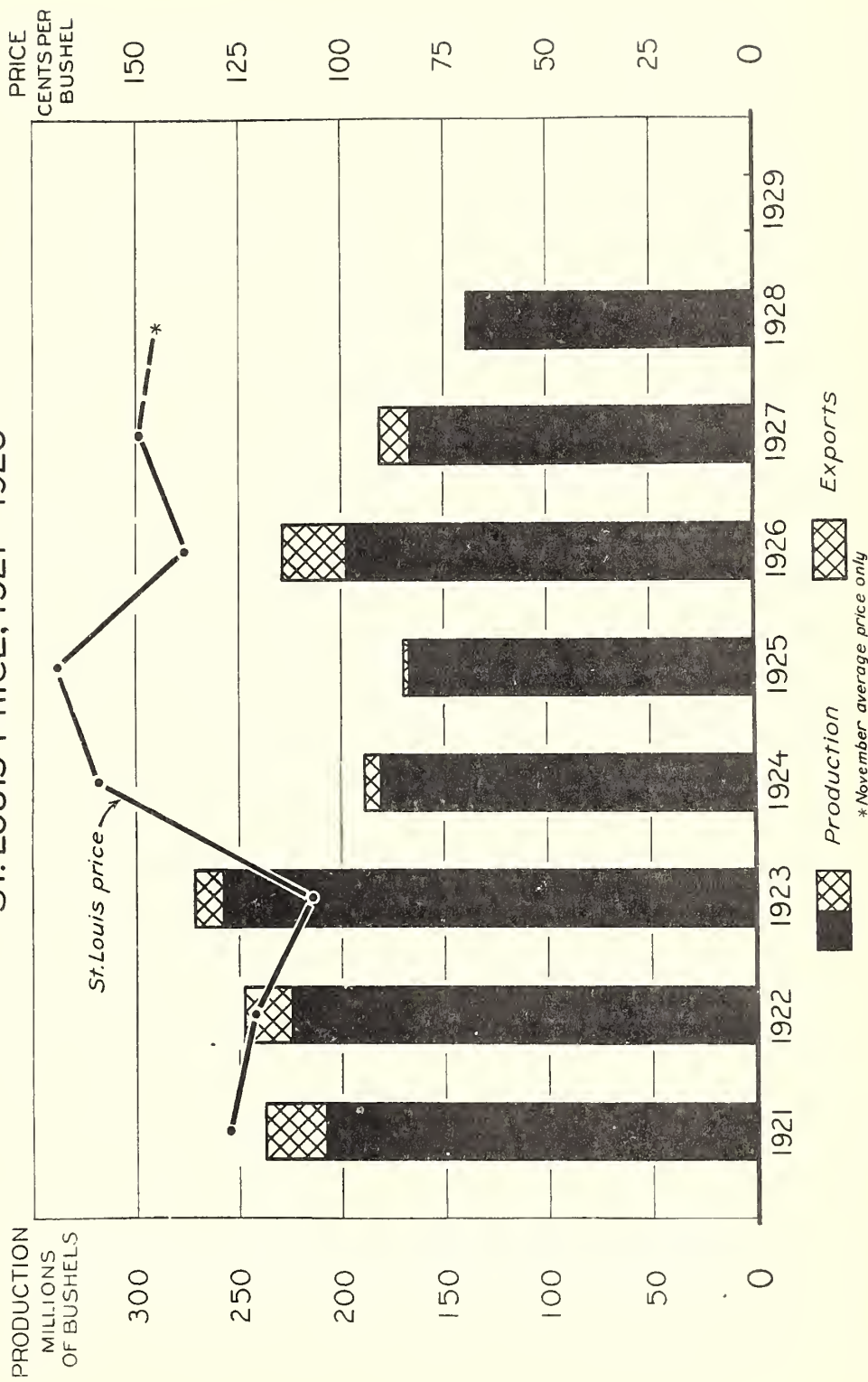
HARD RED SPRING WHEAT AND DURUM WHEAT: PRODUCTION, EXPORTS, AND MINNEAPOLIS PRICES, 1921-1928



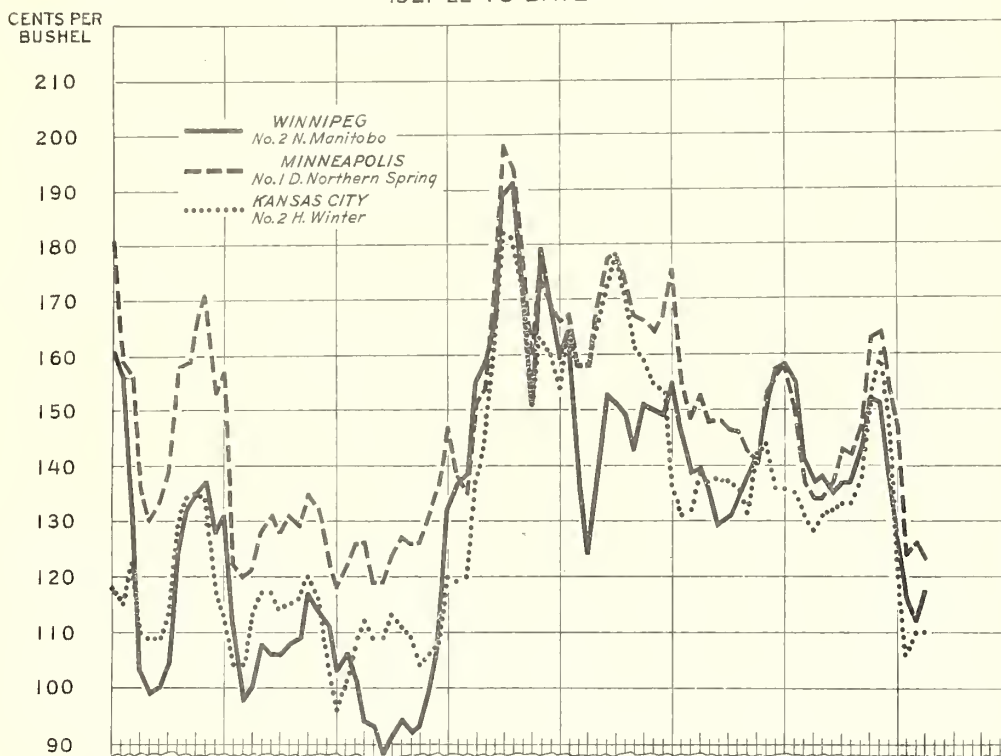
HARD RED WINTER WHEAT: PRODUCTION, EXPORTS, AND KANSAS CITY PRICE, 1921-1928



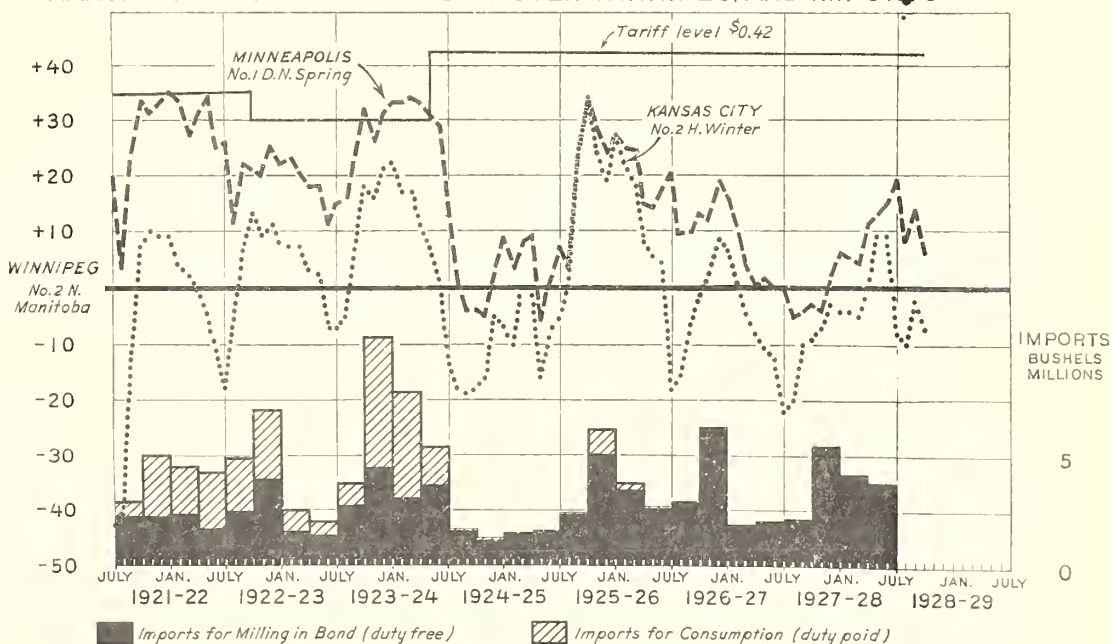
SOFT RED WINTER WHEAT: PRODUCTION, EXPORTS, AND ST. LOUIS PRICE, 1921-1928



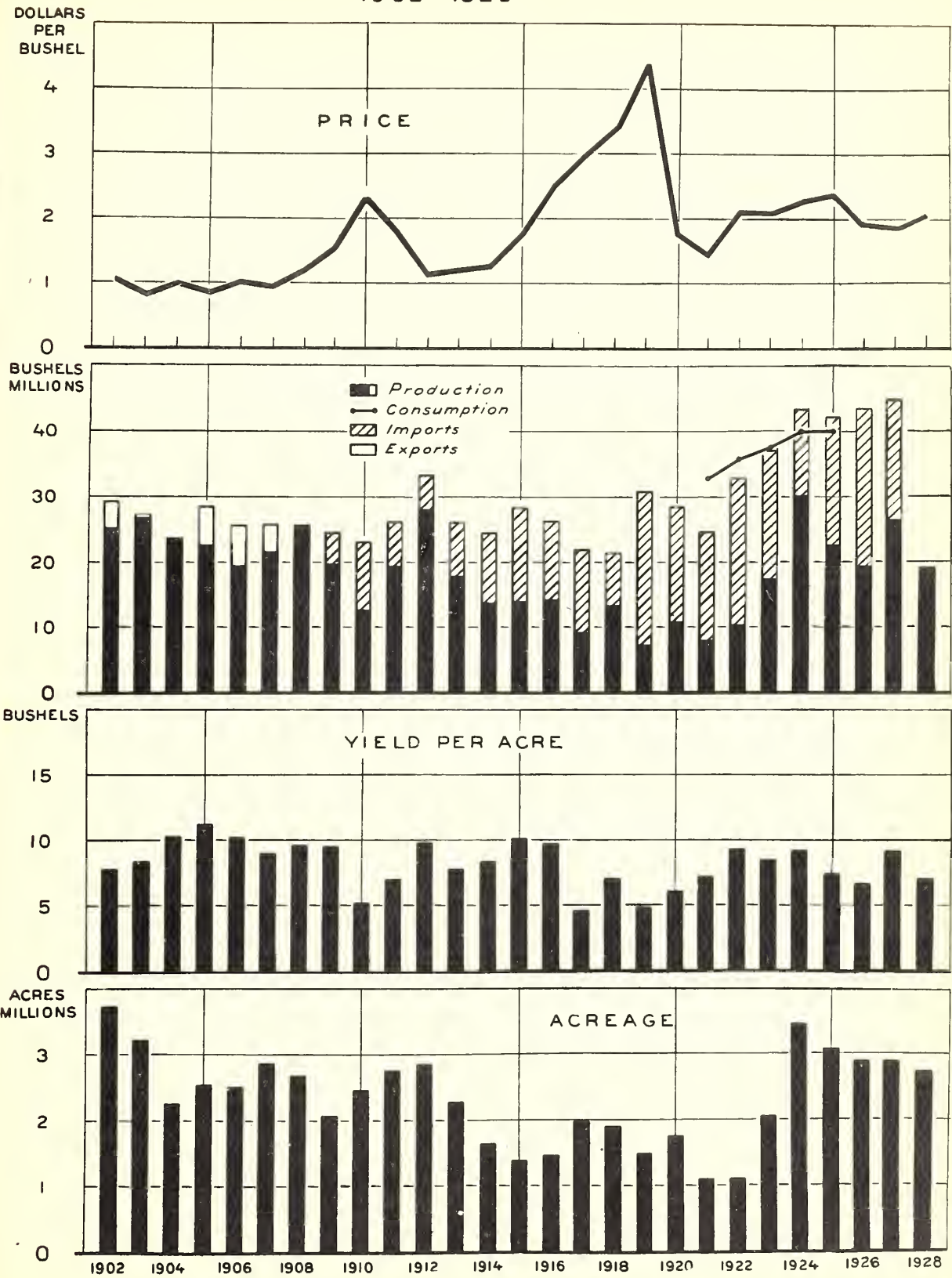
WHEAT: AVERAGE PRICE AT MINNEAPOLIS, KANSAS CITY, AND WINNIPEG 1921-22 TO DATE



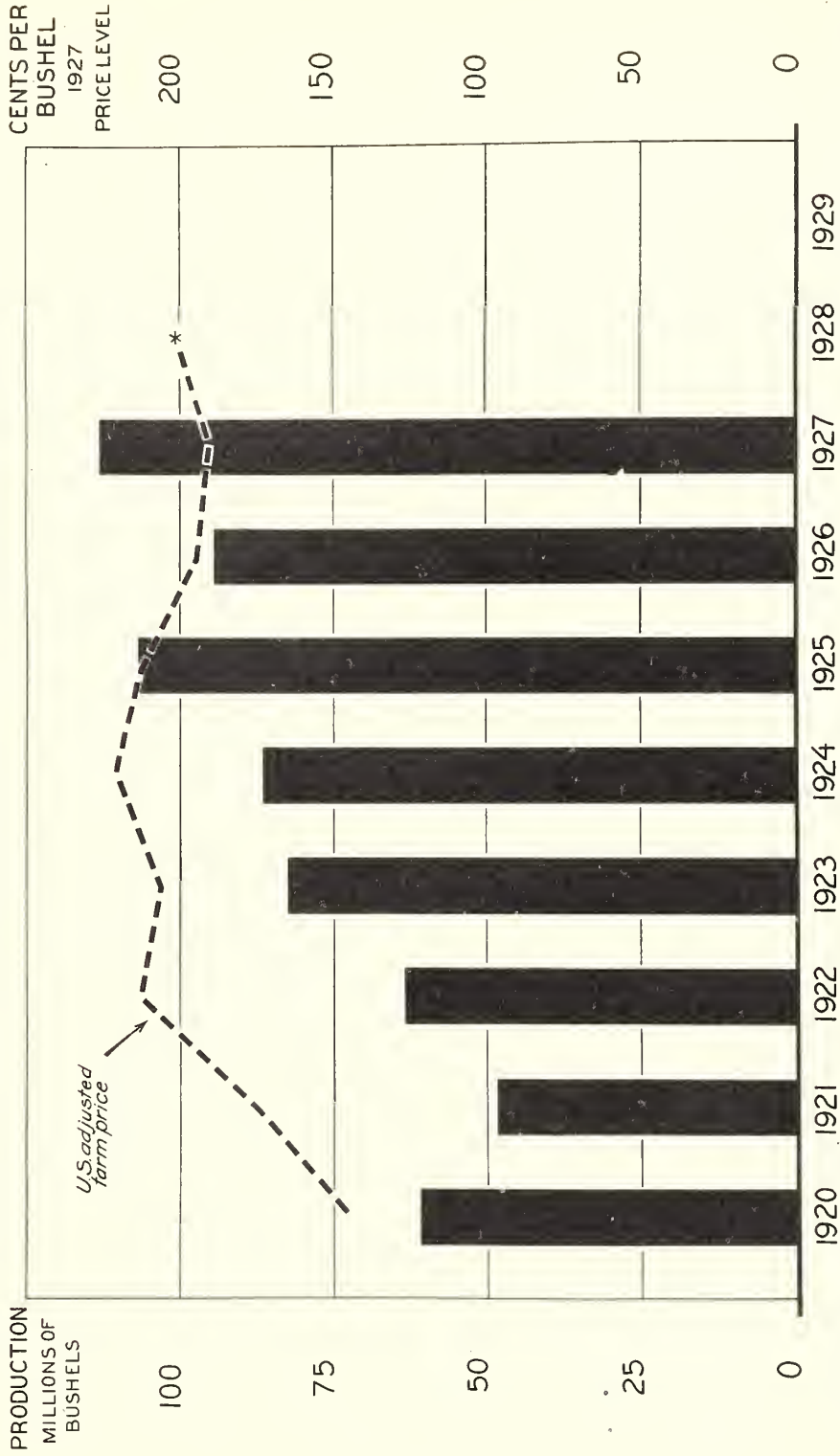
KANSAS CITY AND MINNEAPOLIS OVER WINNIPEG, AND IMPORTS



FLAX IN UNITED STATES 1902 - 1928



FLAXSEED: TOTAL PRODUCTION IN ARGENTINA, CANADA AND UNITED STATES. AND U.S. ADJUSTED FARM PRICE. 1920-1928



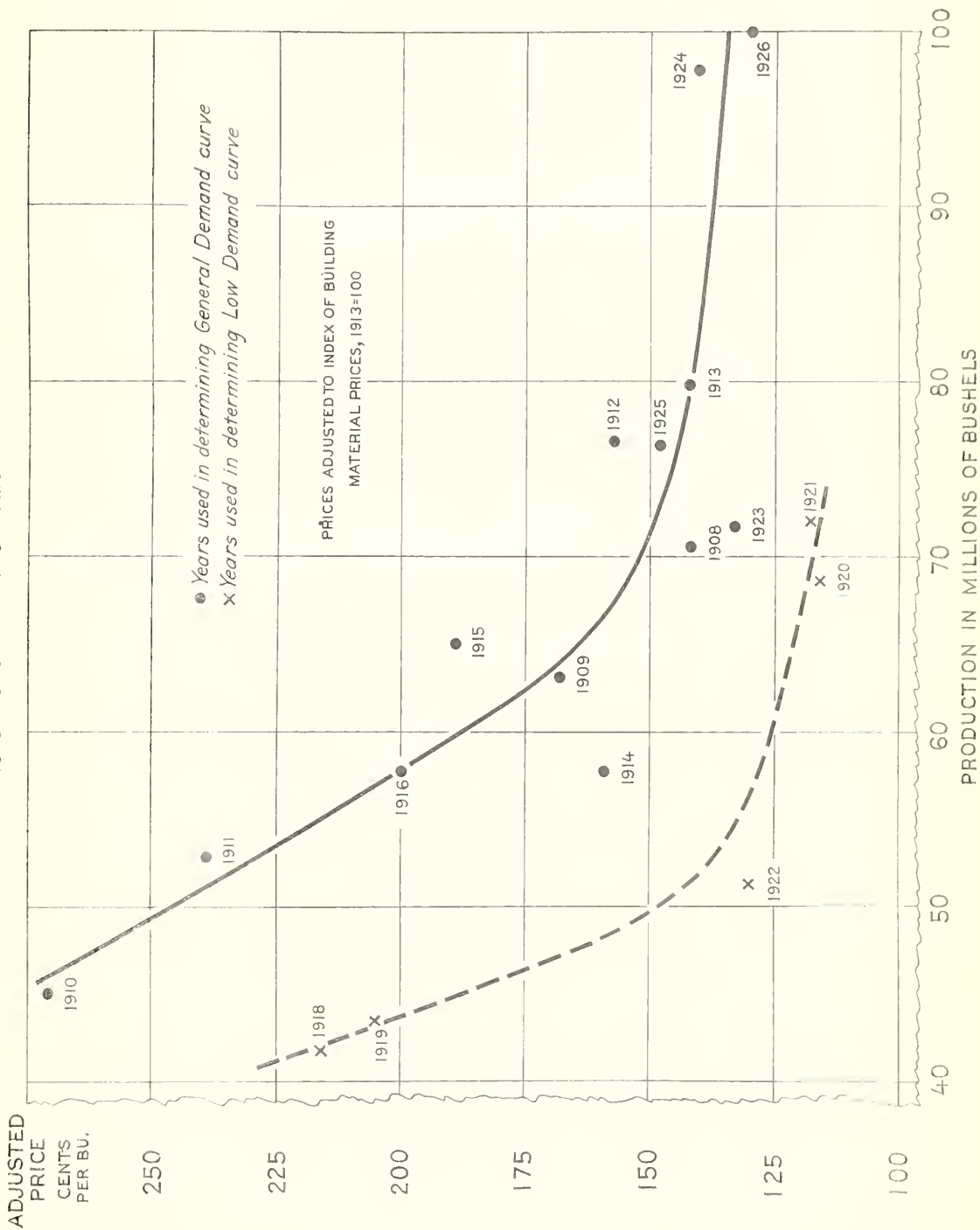
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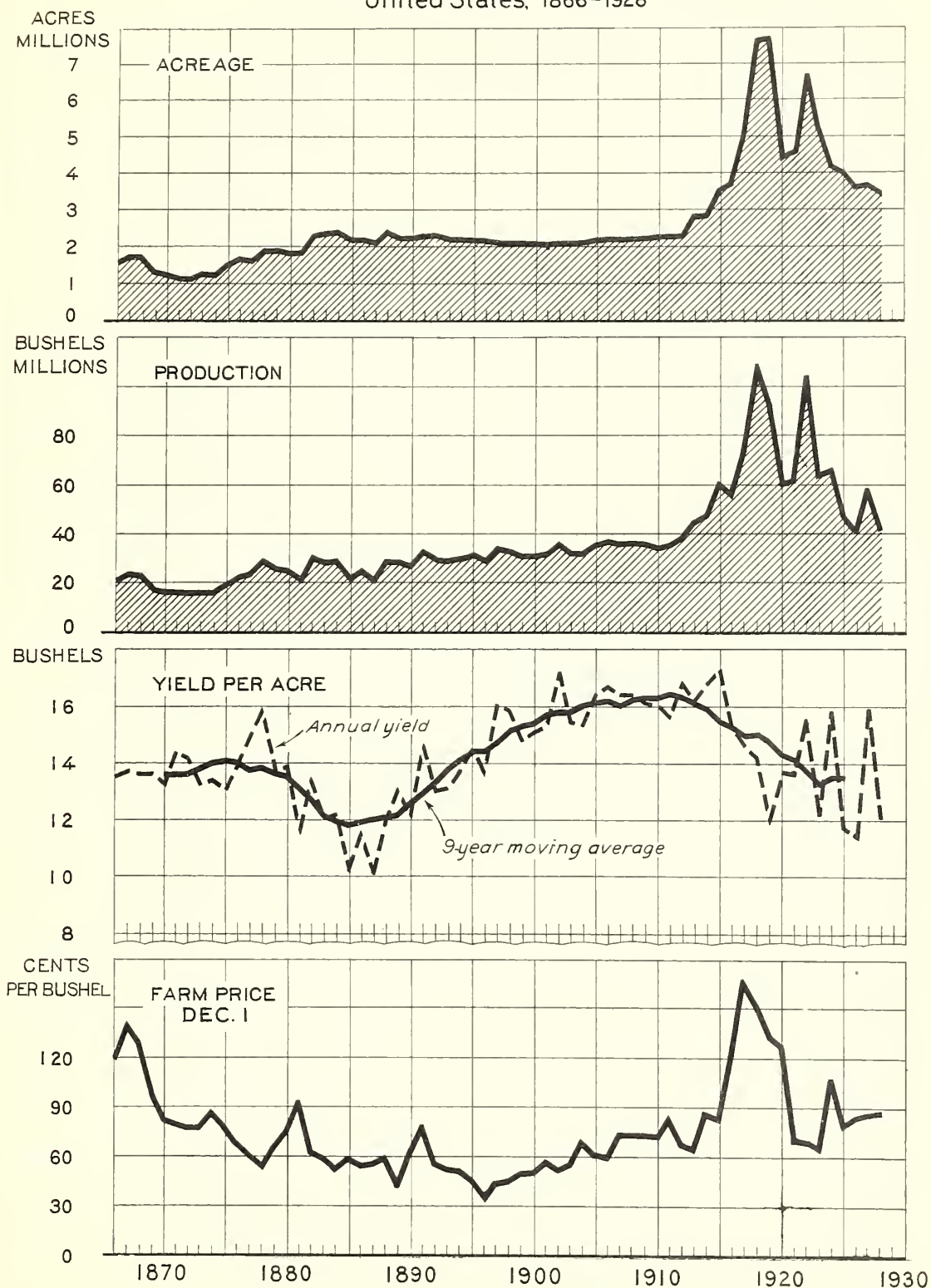
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RELATION OF FLAX PRODUCTION IN ARGENTINA, U.S. AND CANADA, TO AVERAGE MINN. No. 1 FLAX PRICE SEPTEMBER-NOVEMBER, ADJUSTED

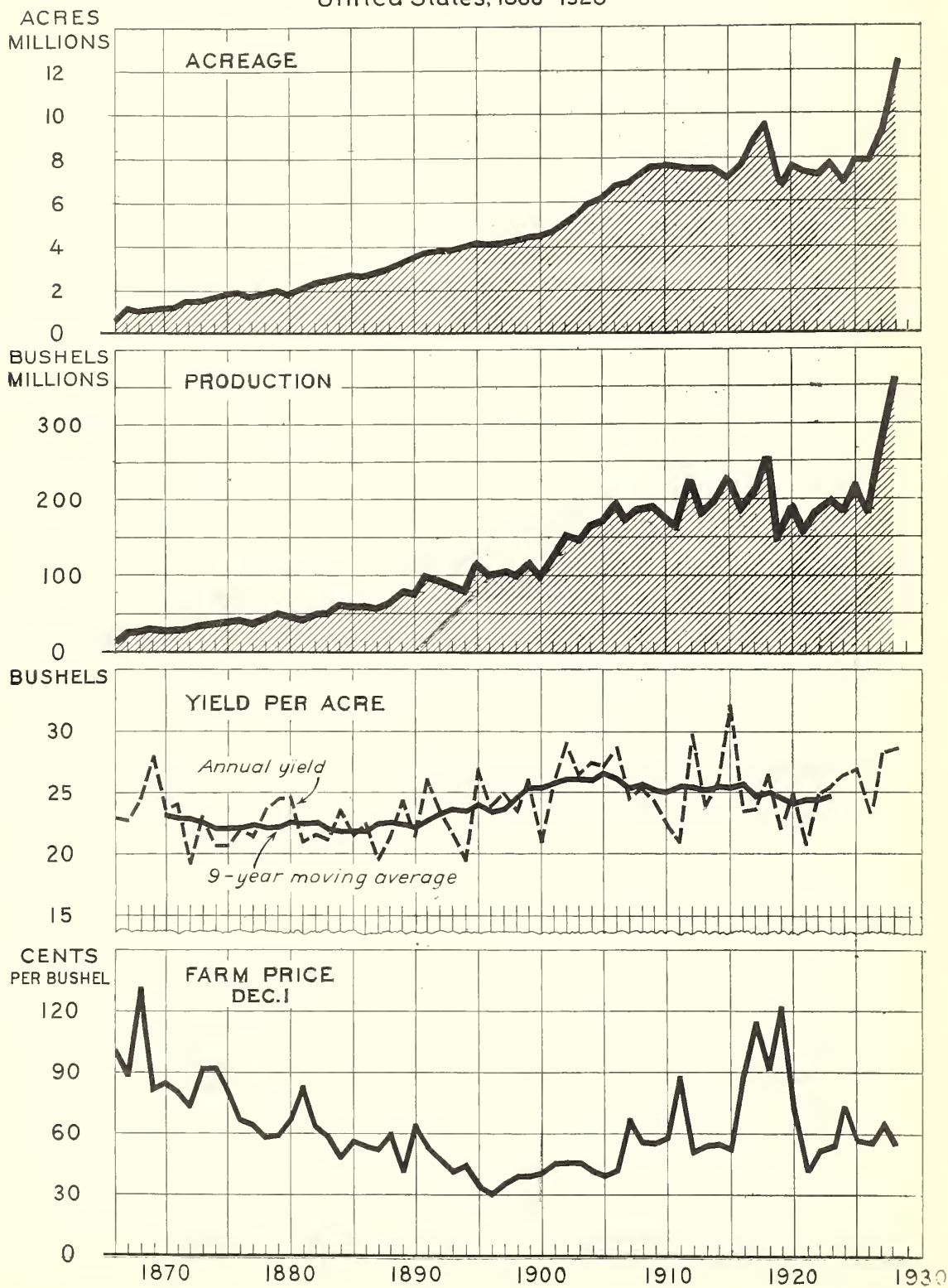
1910-1916 and 1918-1926



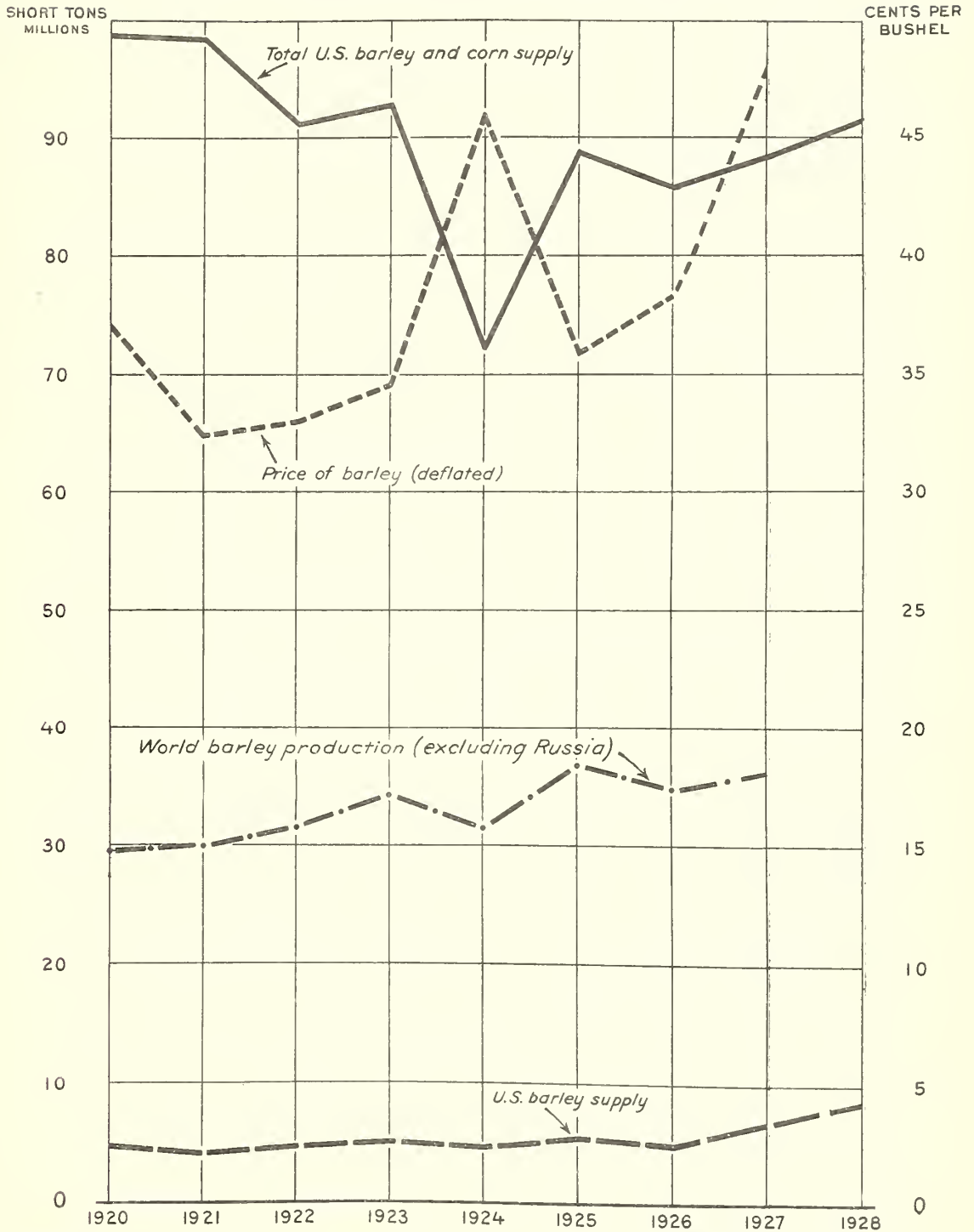
RYE: ACREAGE, PRODUCTION, ACRE YIELD, AND FARM PRICE United States, 1866-1928



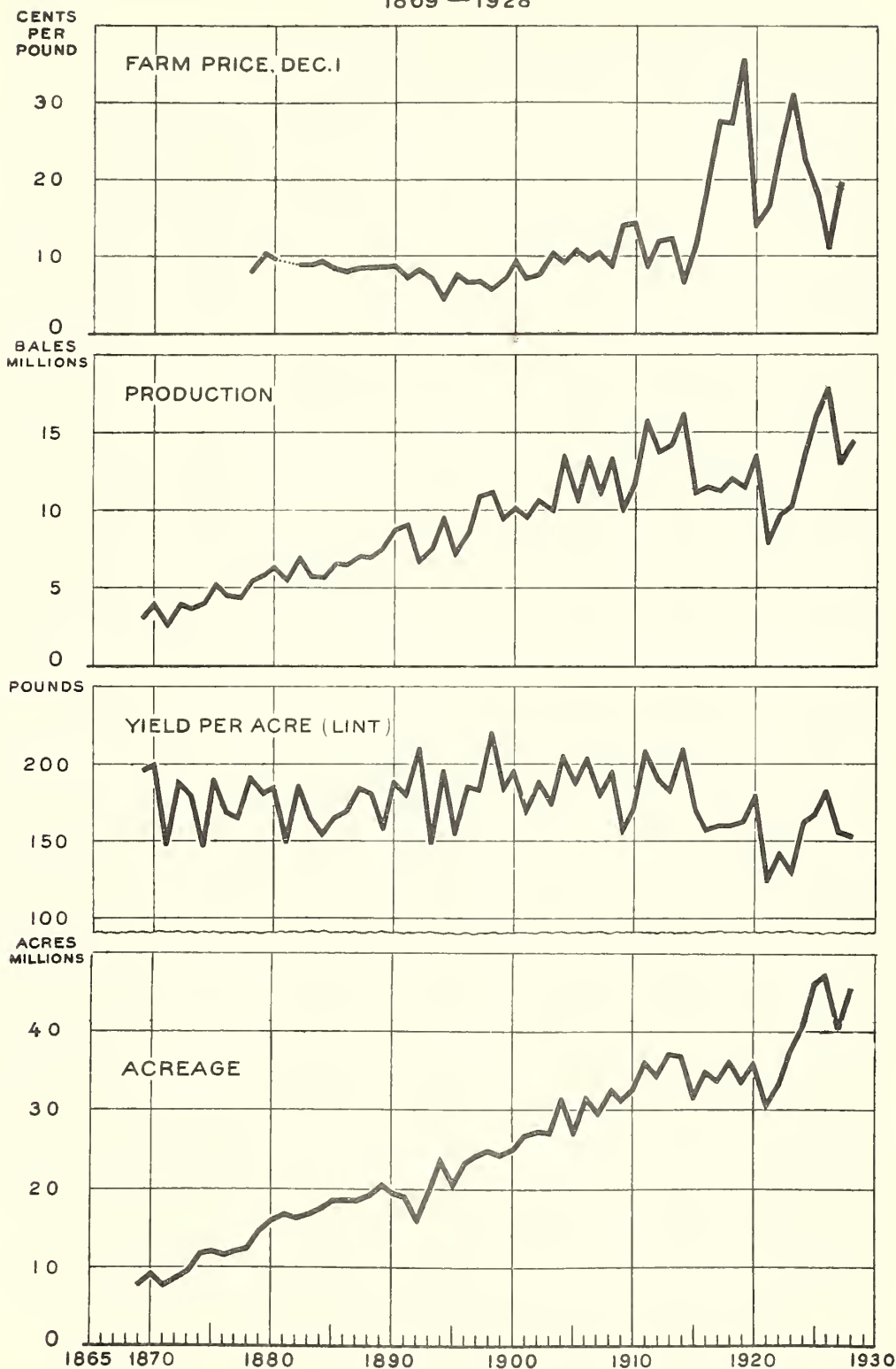
BARLEY: ACREAGE, PRODUCTION, ACRE YIELD, AND FARM PRICE United States, 1866-1928



WORLD AND UNITED STATES BARLEY SUPPLY AND UNITED STATES BARLEY PRICE

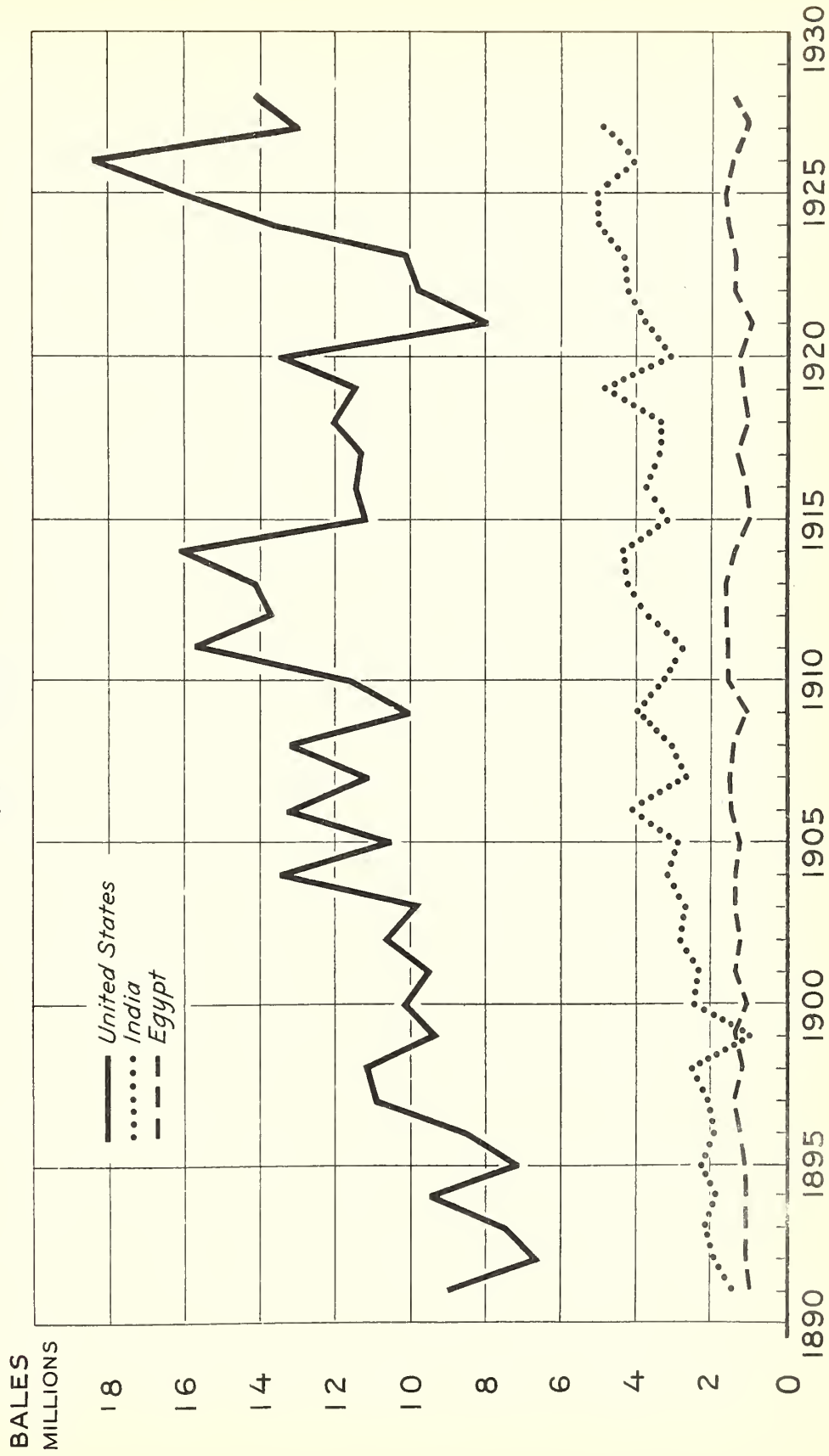


ACREAGE, YIELD, PRODUCTION, AND PRICE OF COTTON 1869 — 1928

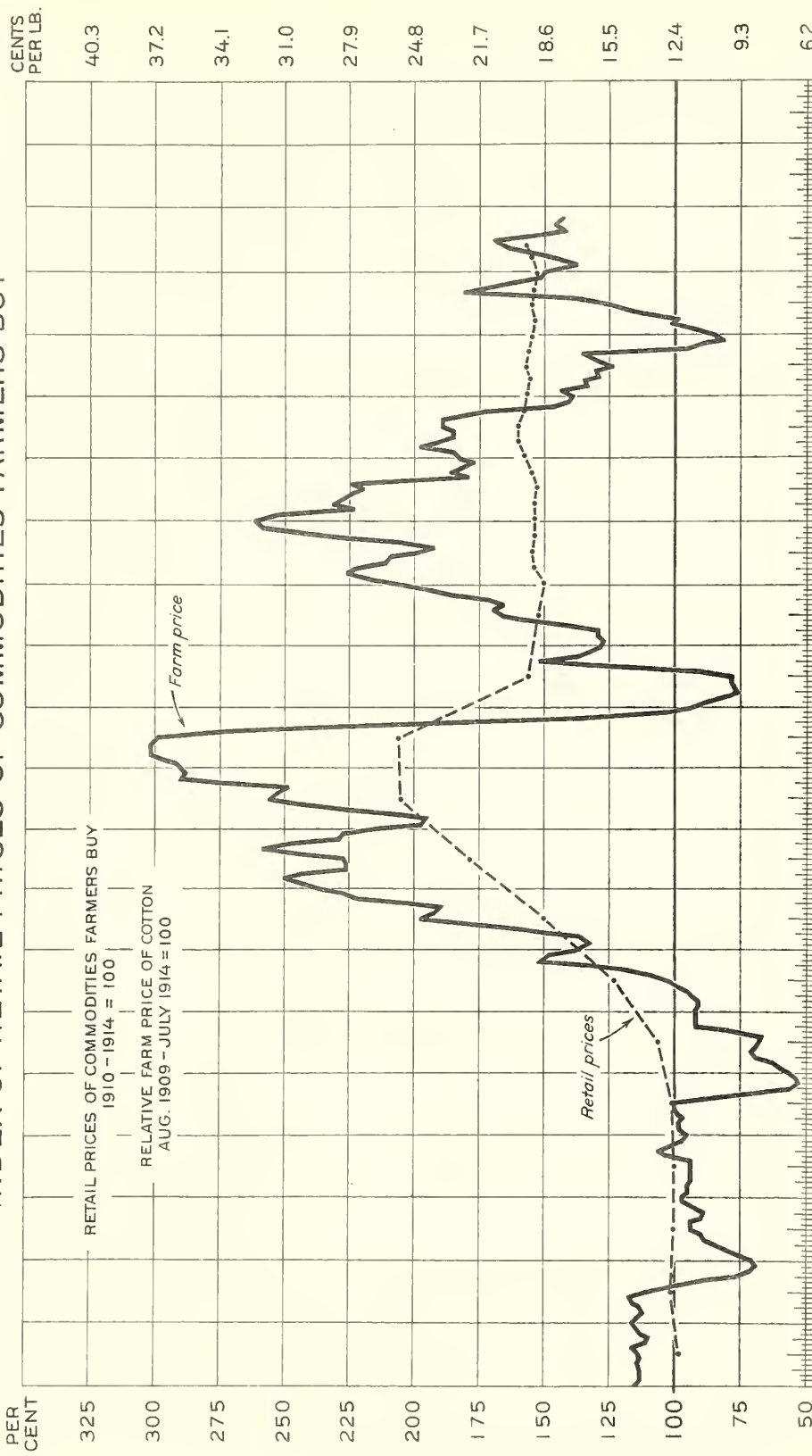


COTTON PRODUCTION OF UNITED STATES, EGYPT, AND INDIA

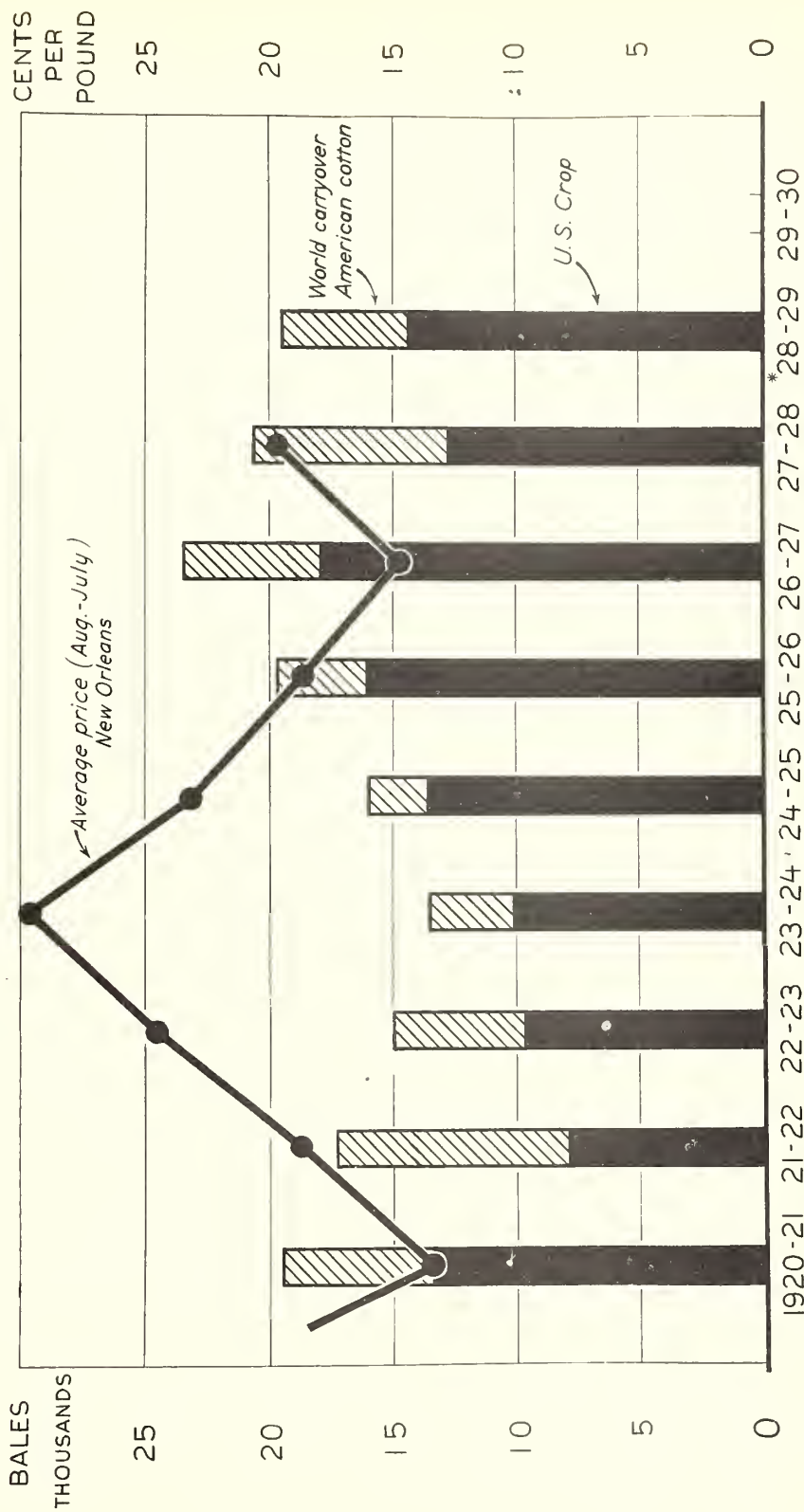
1891-1928



FARM PRICES OF COTTON



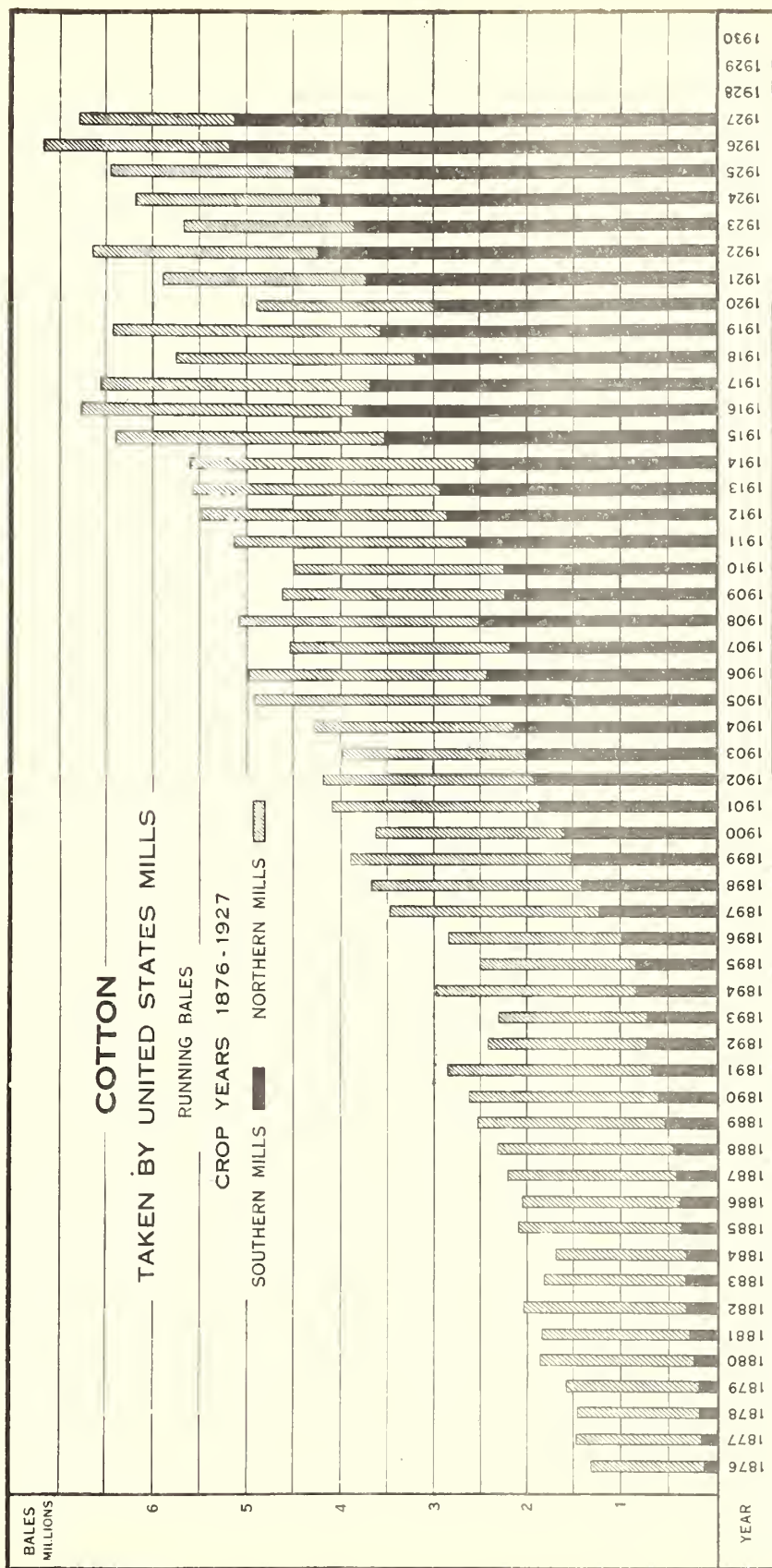
RELATION BETWEEN TOTAL SUPPLY OF AMERICAN COTTON (U.S. CROP AND WORLD CARRYOVER) AND AVERAGE PRICES OF SPOT COTTON AT NEW ORLEANS, 1920-28



* FOR 1928-29, CROP FORECAST OF SEPTEMBER 1, USED

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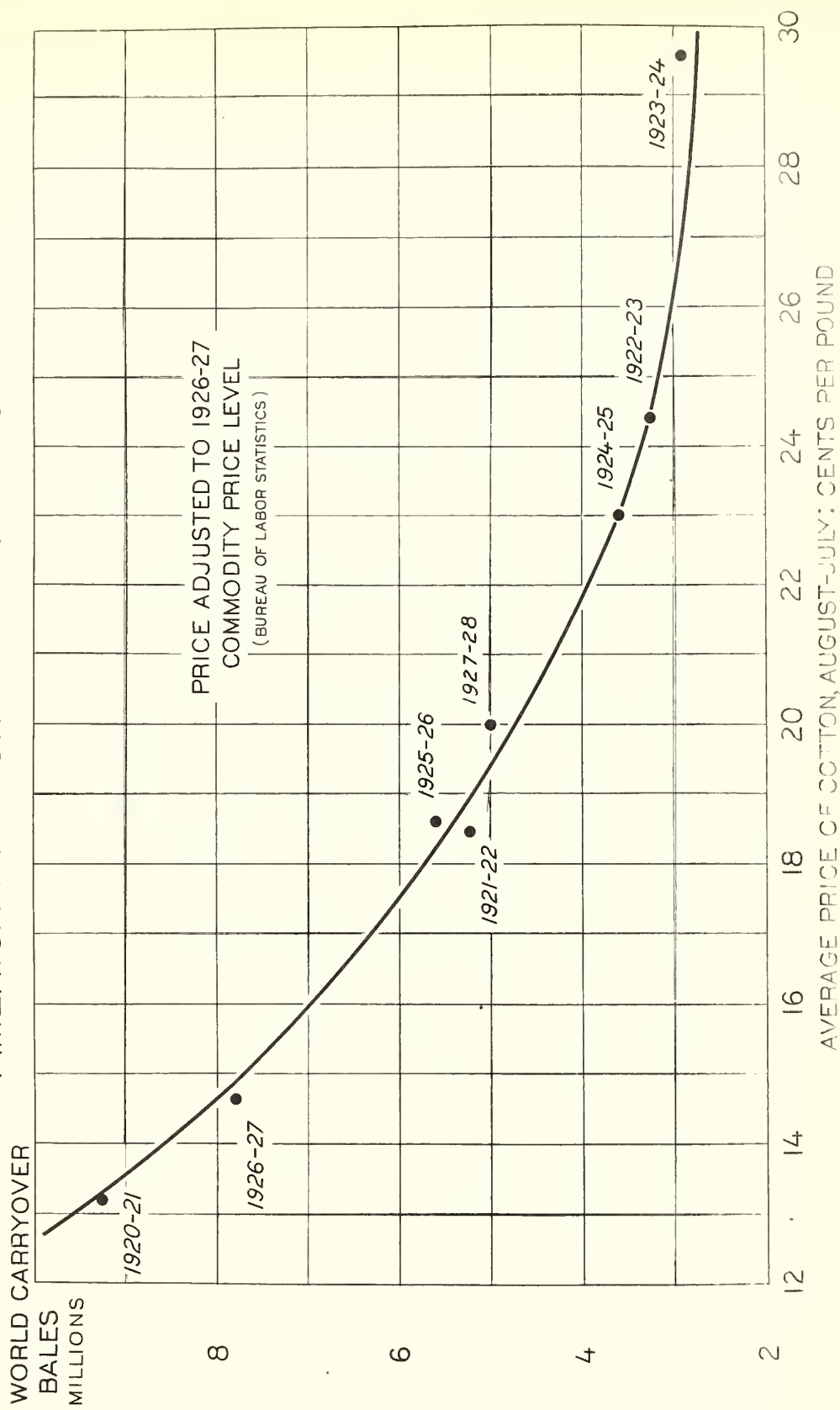
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RELATION BETWEEN AVERAGE YEARLY PRICE OF COTTON AT NEW ORLEANS AND WORLD CARRYOVER OF AMERICAN COTTON AT END OF SEASON

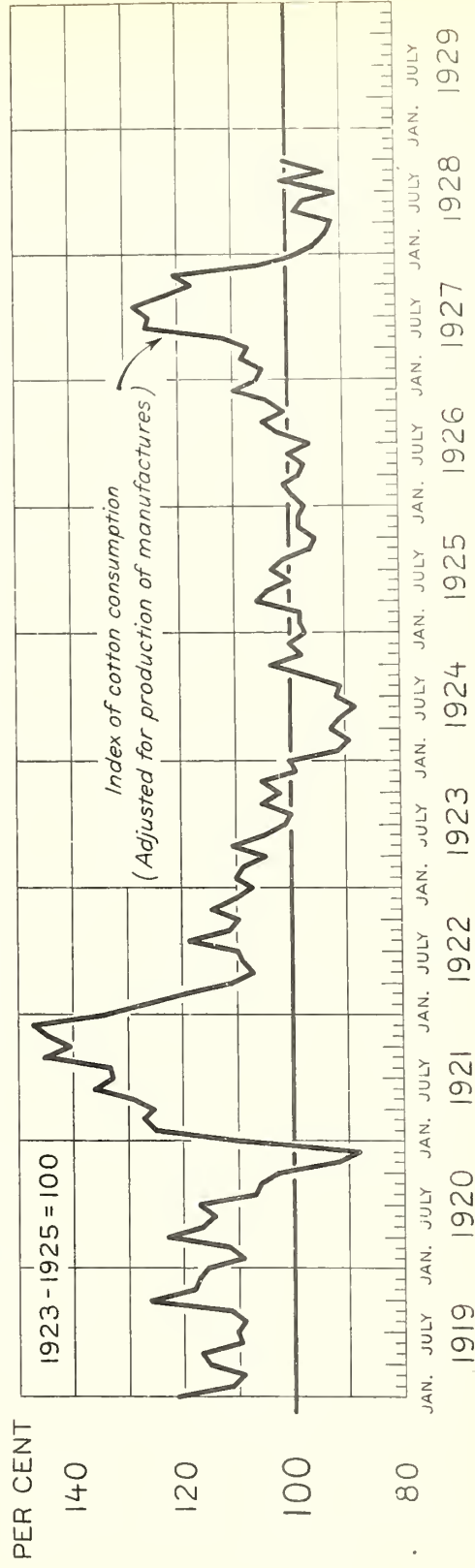
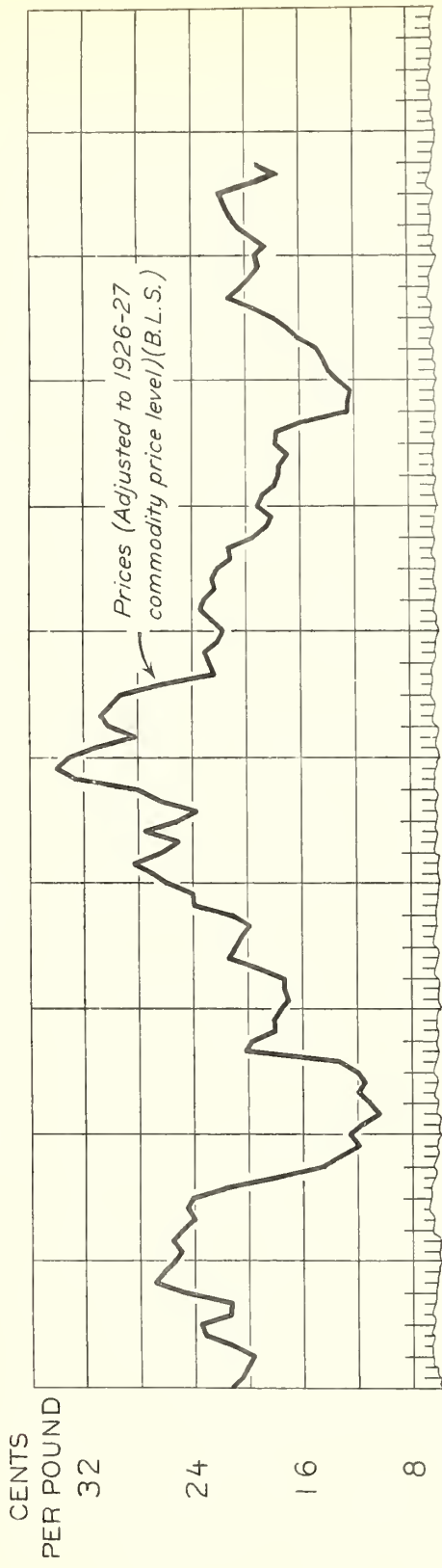


PRICES OF SPOT COTTON AT NEW ORLEANS

(ADJUSTED FOR CHANGES IN COMMODITY PRICES)

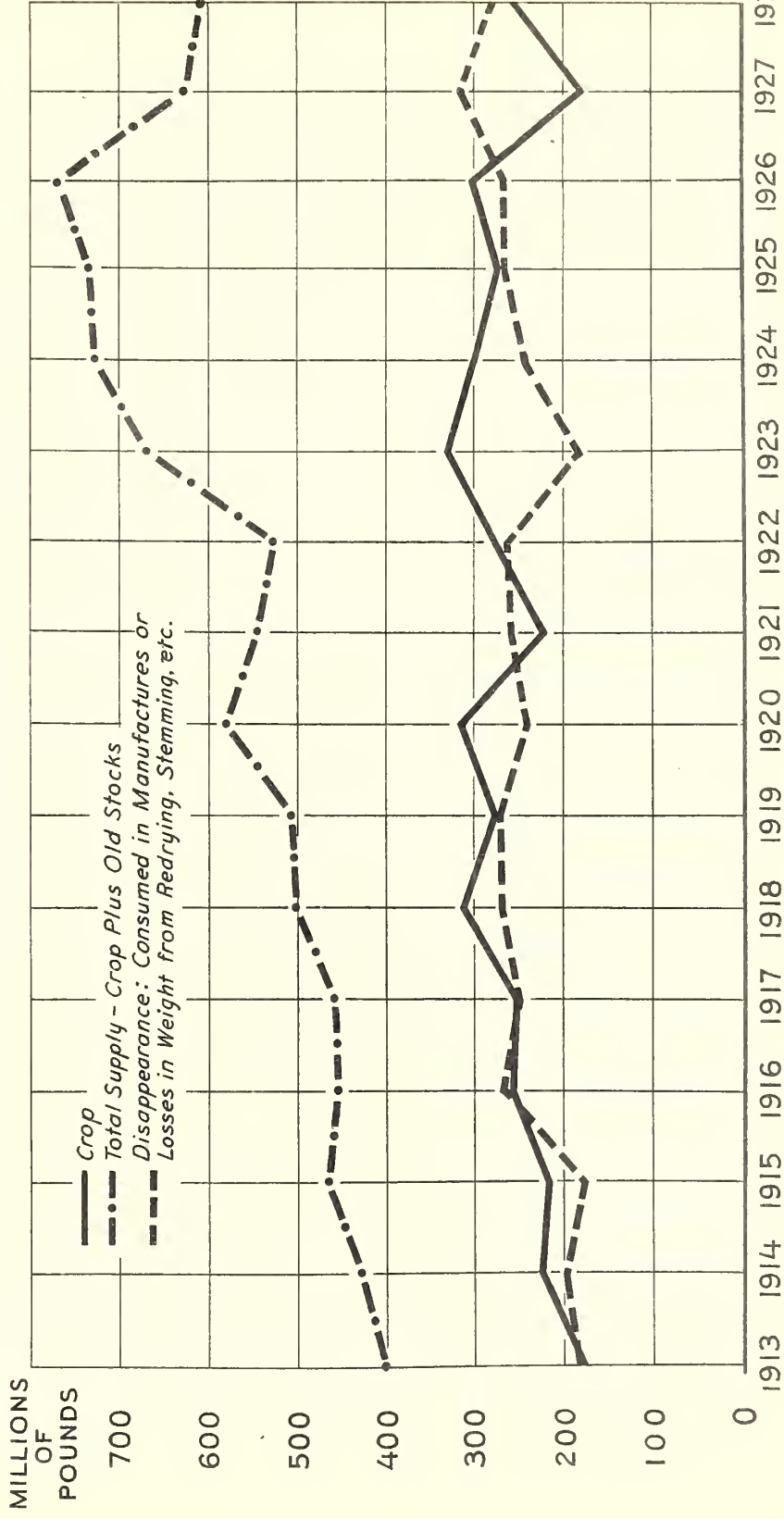
INDEX OF COTTON MILL CONSUMPTION

(ADJUSTED FOR CHANGES IN PRODUCTION OF MANUFACTURES)

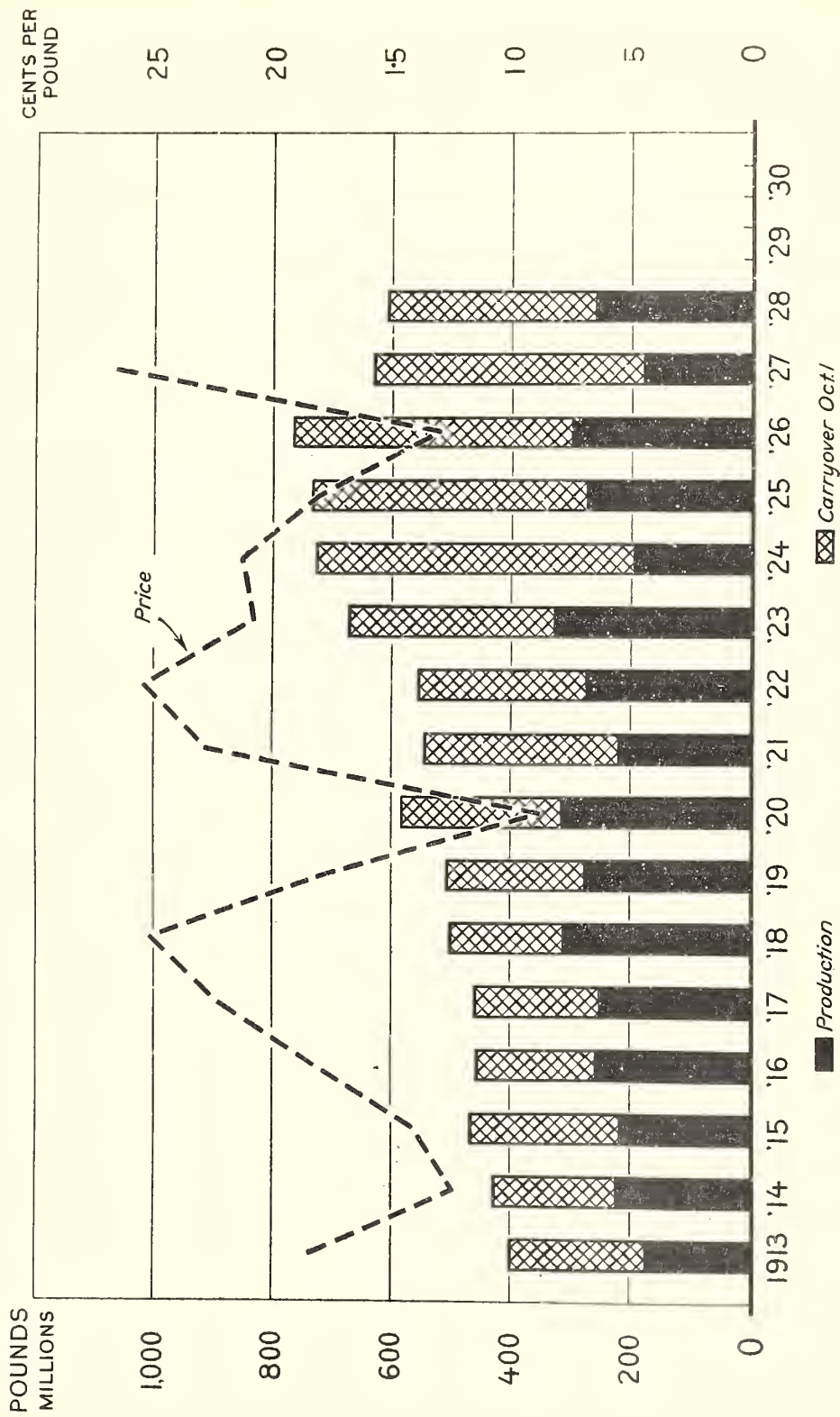


PRODUCTION AND CONSUMPTION OF BURLEY TOBACCO

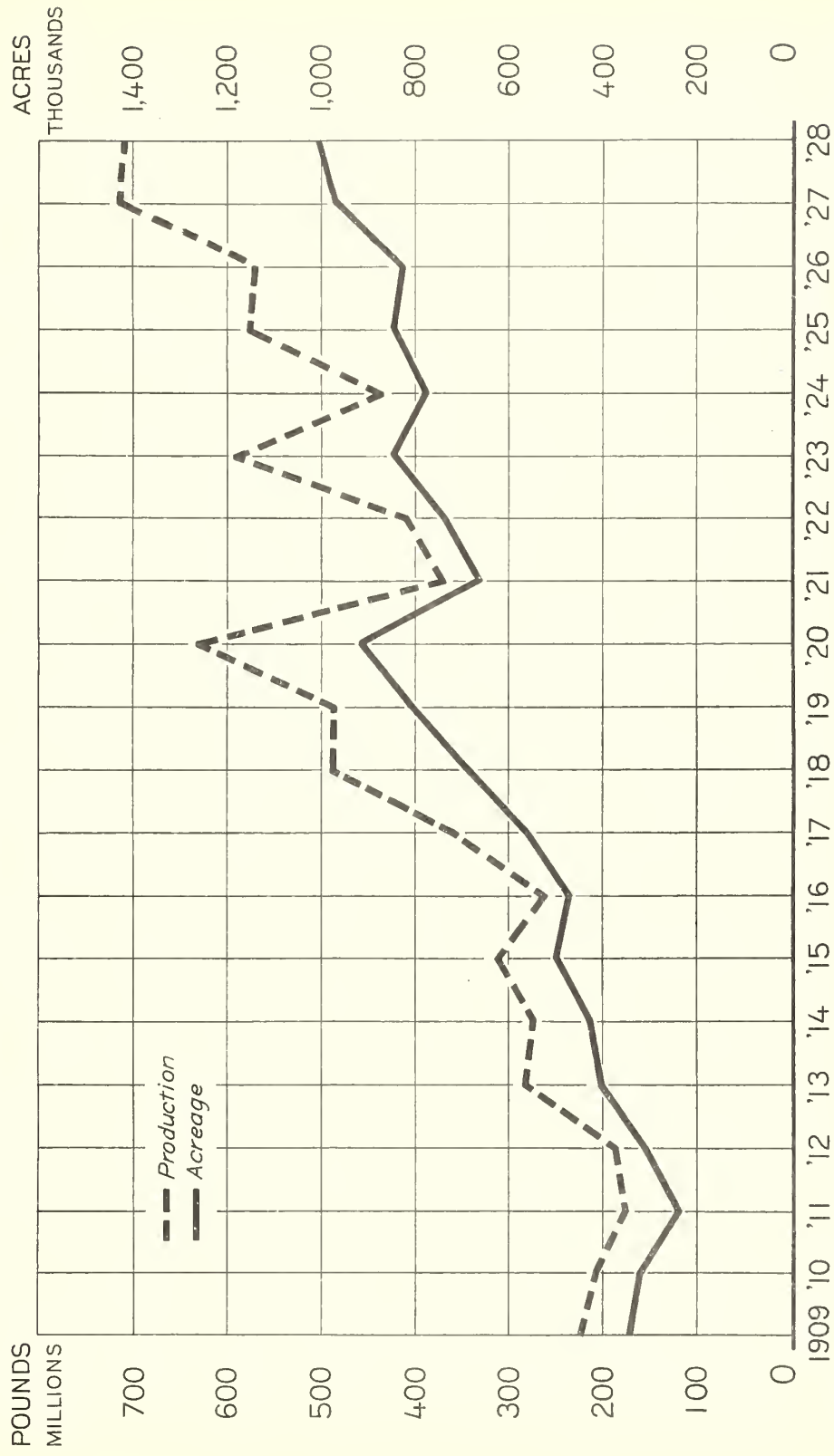
1913 - 1928



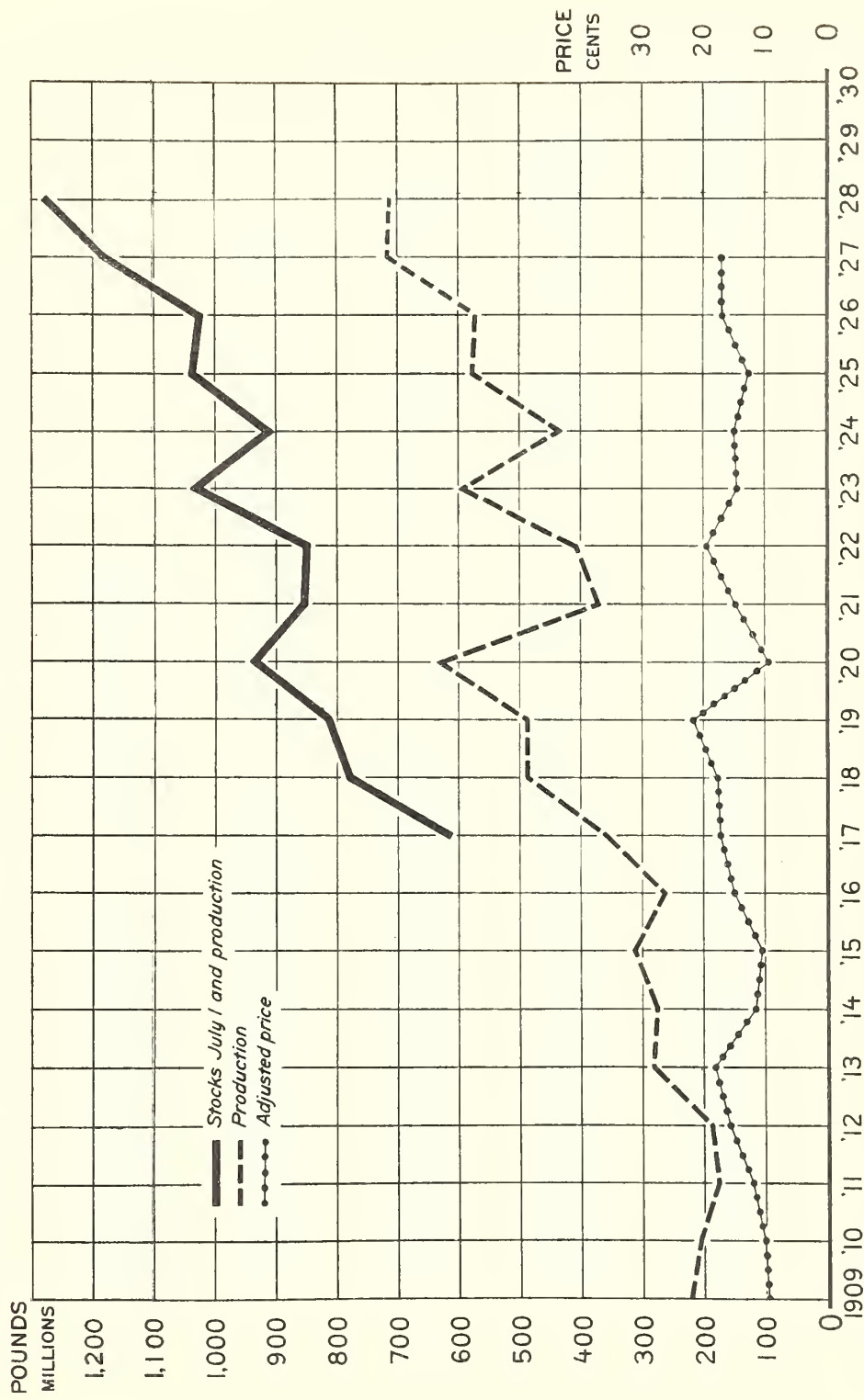
BURLEY TOBACCO: PRODUCTION, CARRYOVER, AND ADJUSTED PRICE, 1913-1928



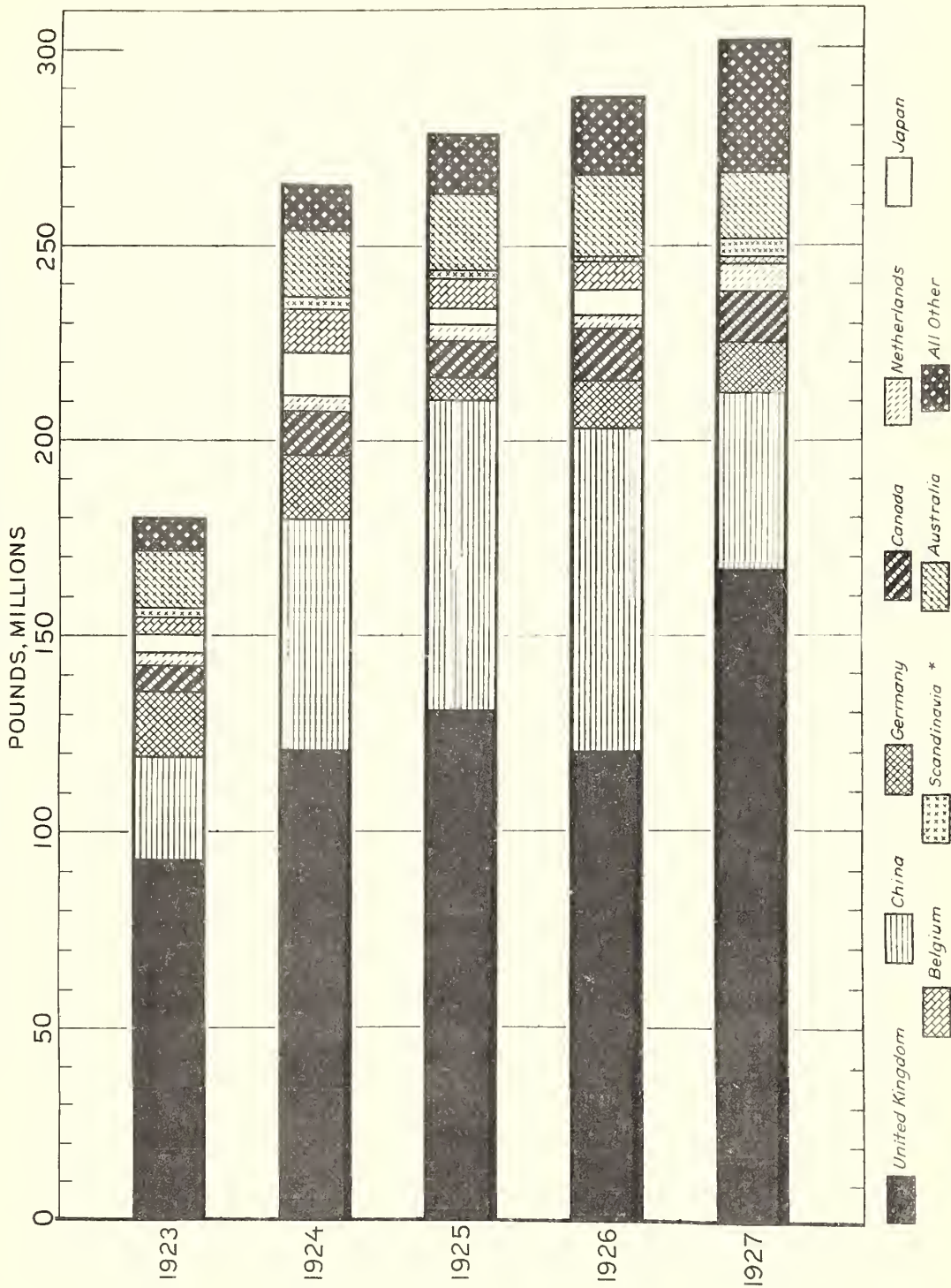
ACREAGE AND PRODUCTION OF FLUE-CURED TOBACCO



PRODUCTION AND PRICE OF FLUE-CURED TOBACCO, 1909-1928

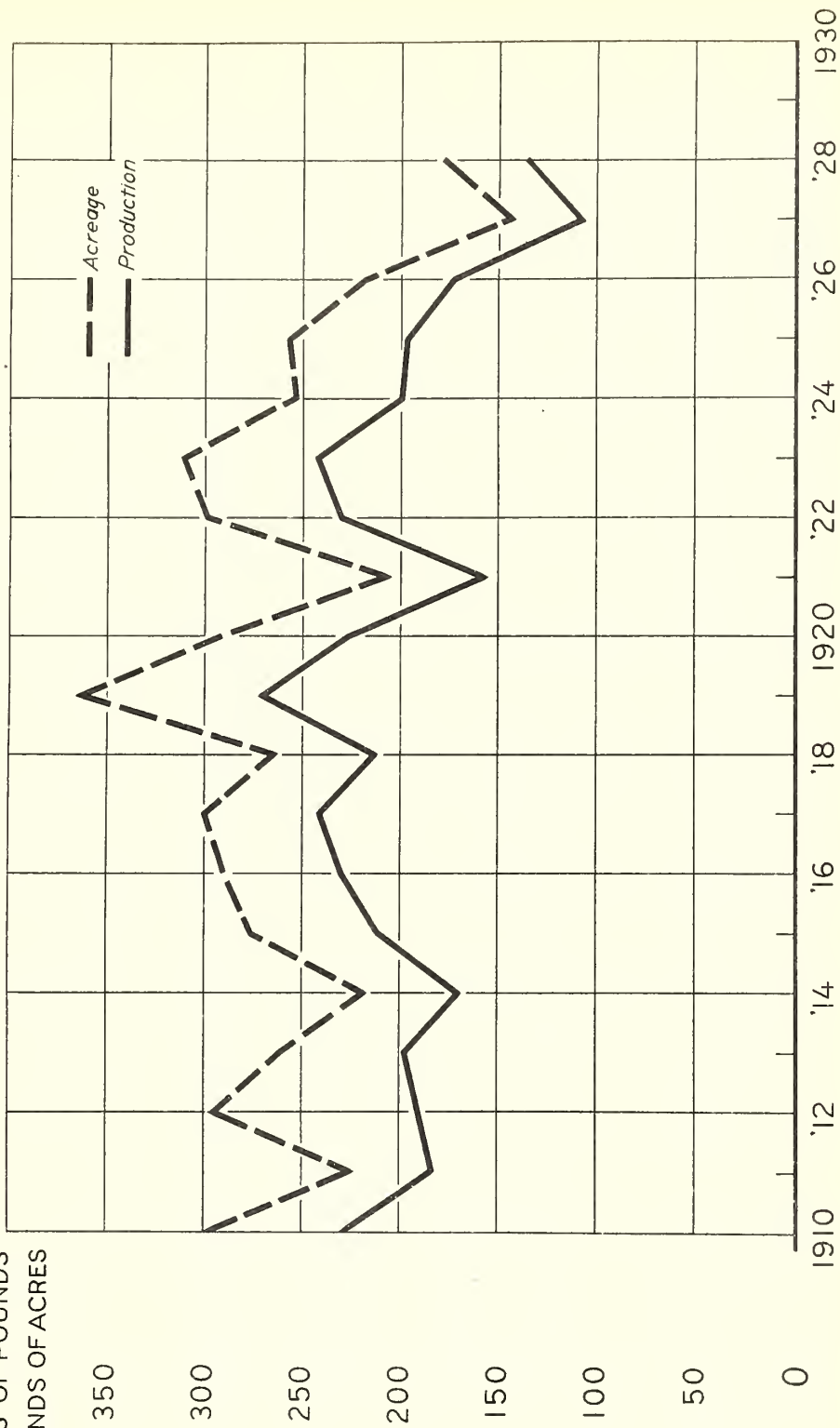


EXPORTS OF BRIGHT FLUE-CURED TOBACCO



ACREAGE AND PRODUCTION OF DARK-FIRED TOBACCO, 1910 - 1928

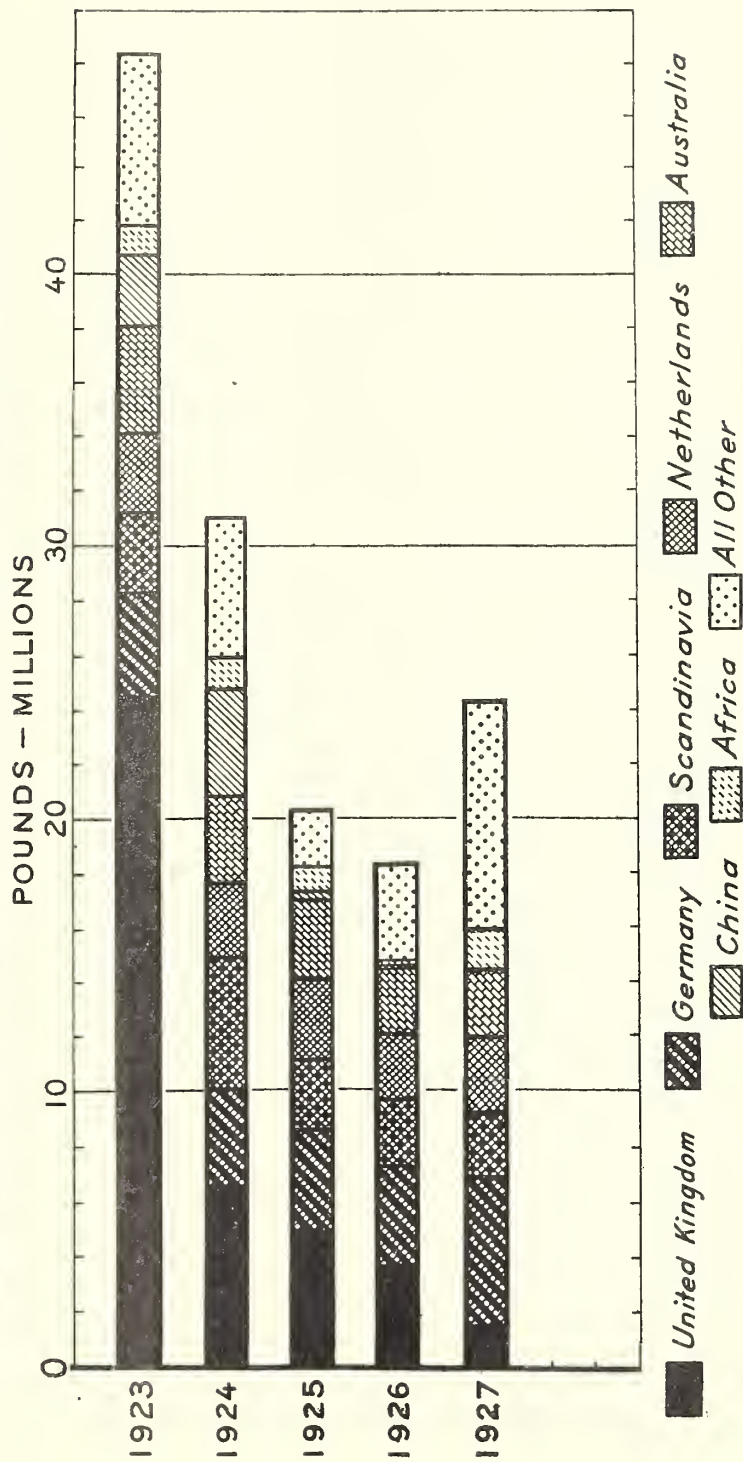
MILLIONS OF POUNDS
THOUSANDS OF ACRES



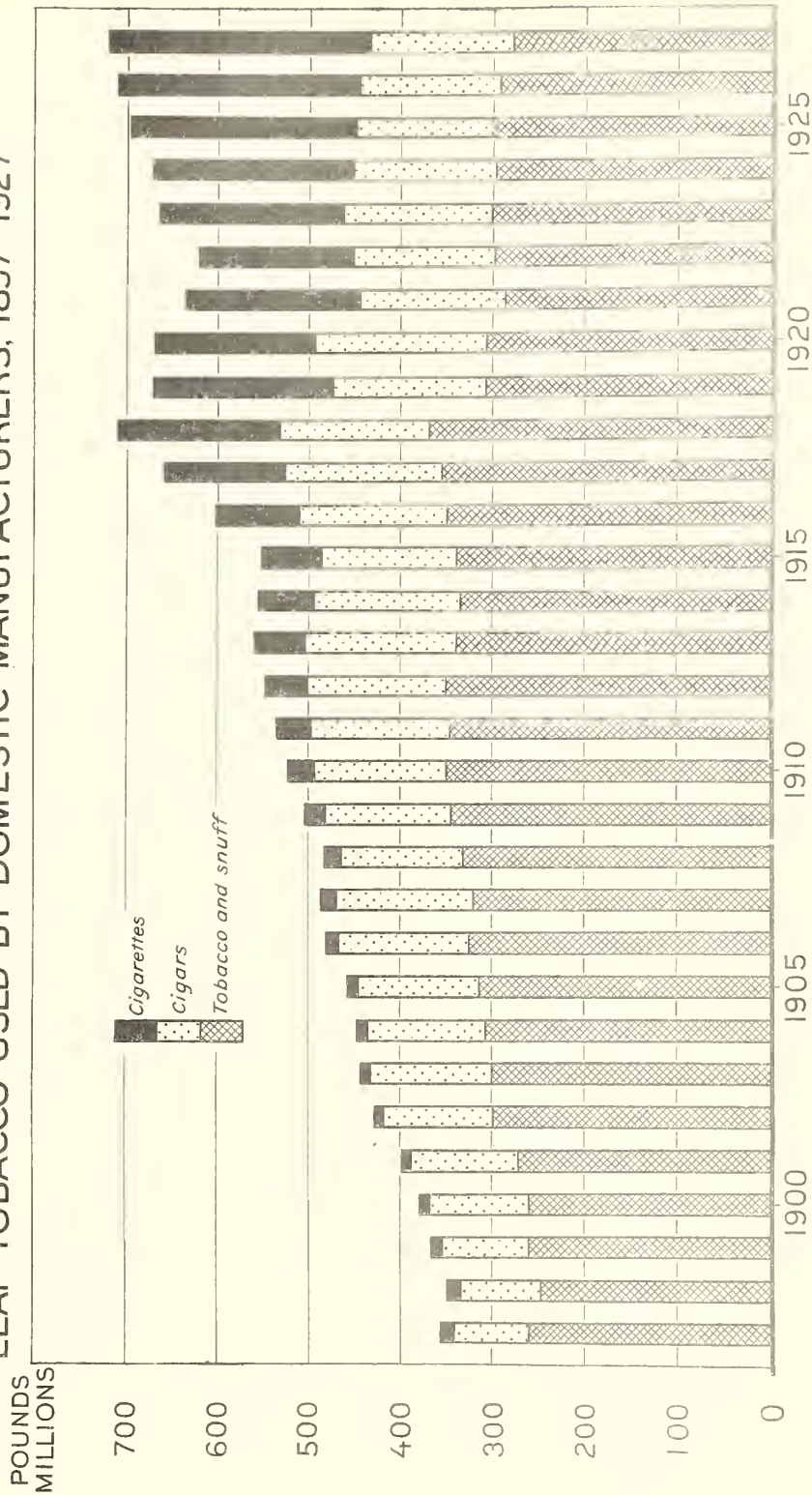
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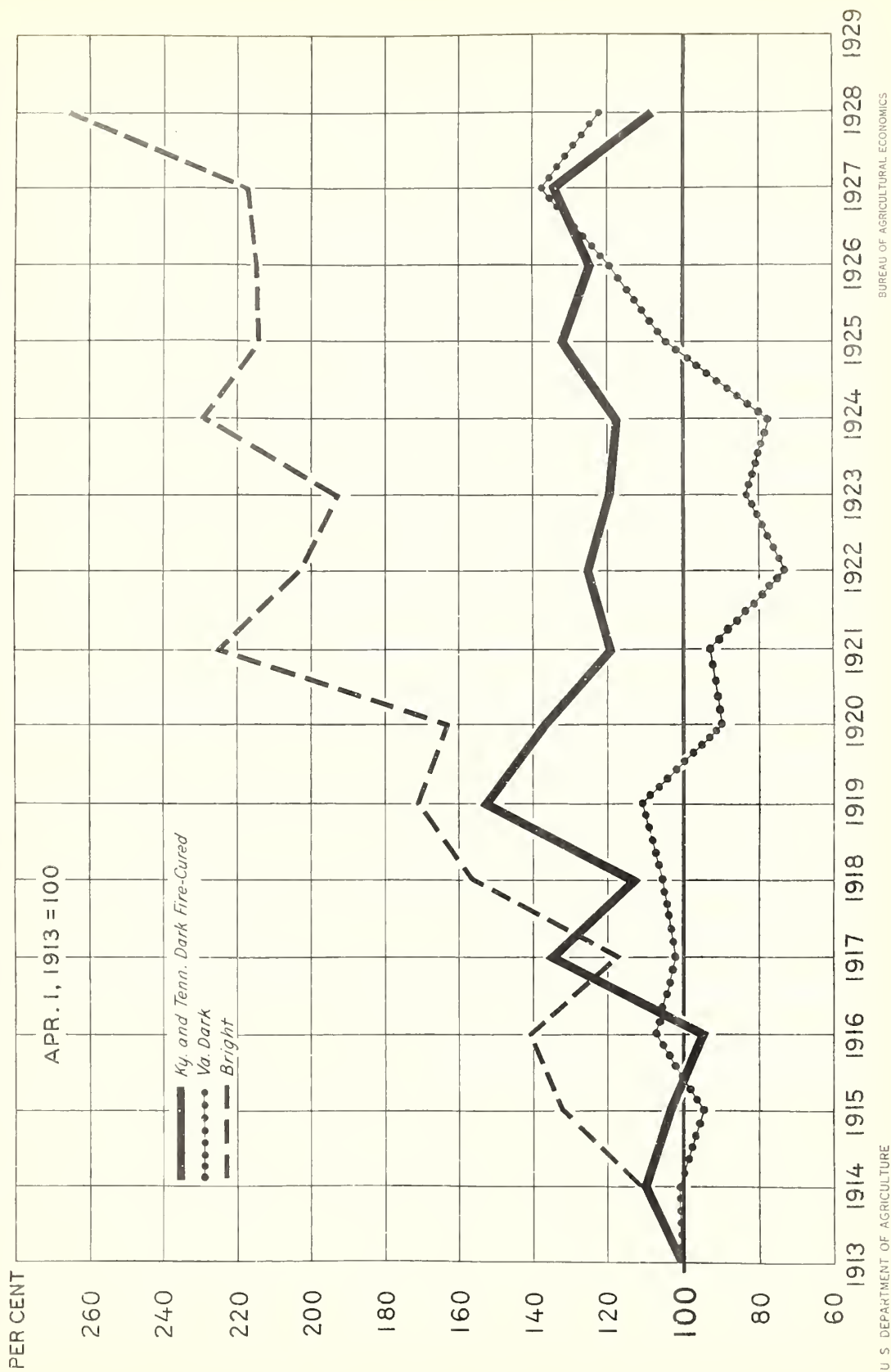
EXPORTS OF VIRGINIA DARK FIRE-CURED TOBACCO



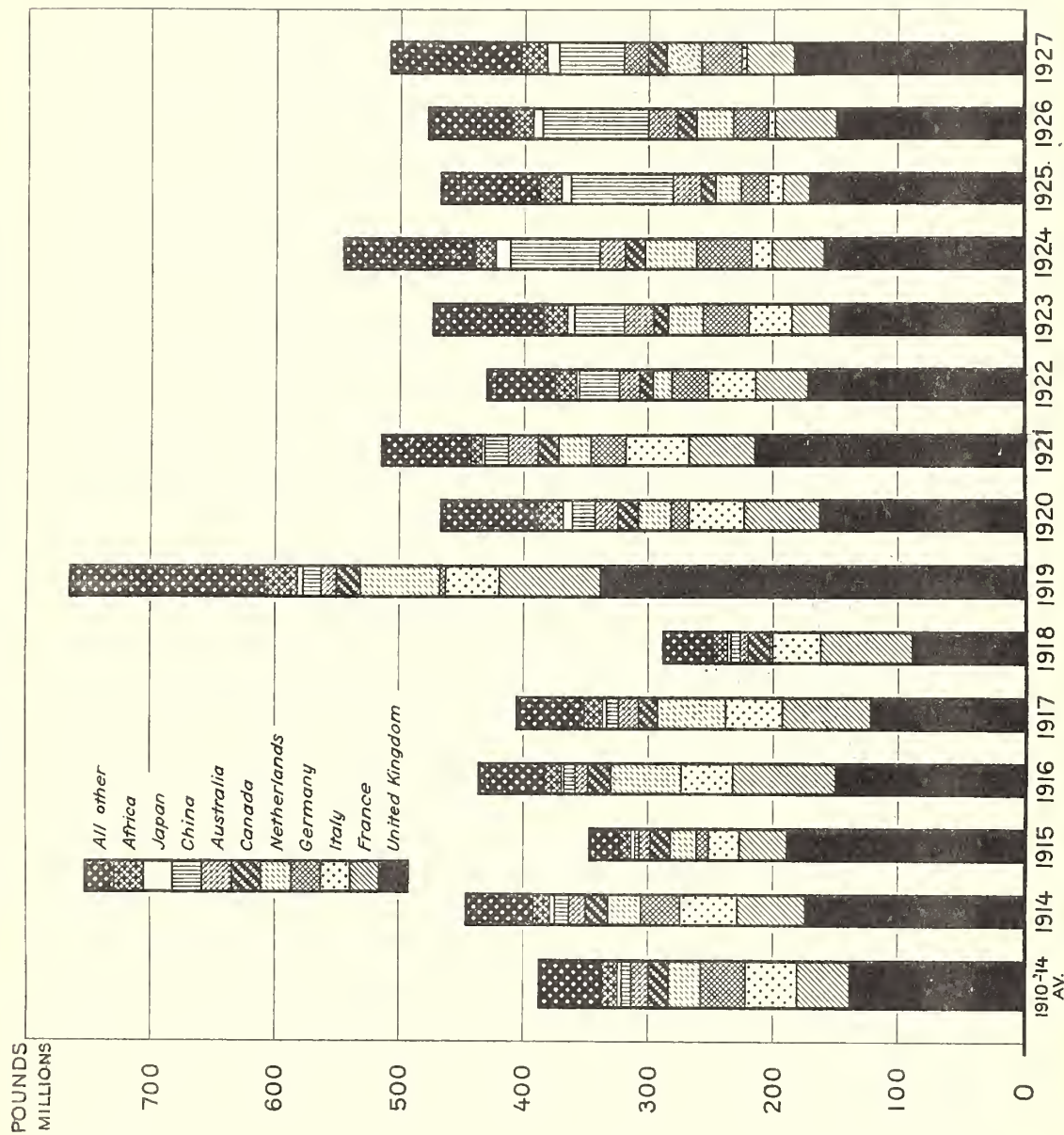
LEAF TOBACCO USED BY DOMESTIC MANUFACTURERS, 1897-1927



LEAF TOBACCO HELD BY MANUFACTURERS AND DEALERS, 1913-1928



UNITED STATES EXPORTS OF LEAF TOBACCO



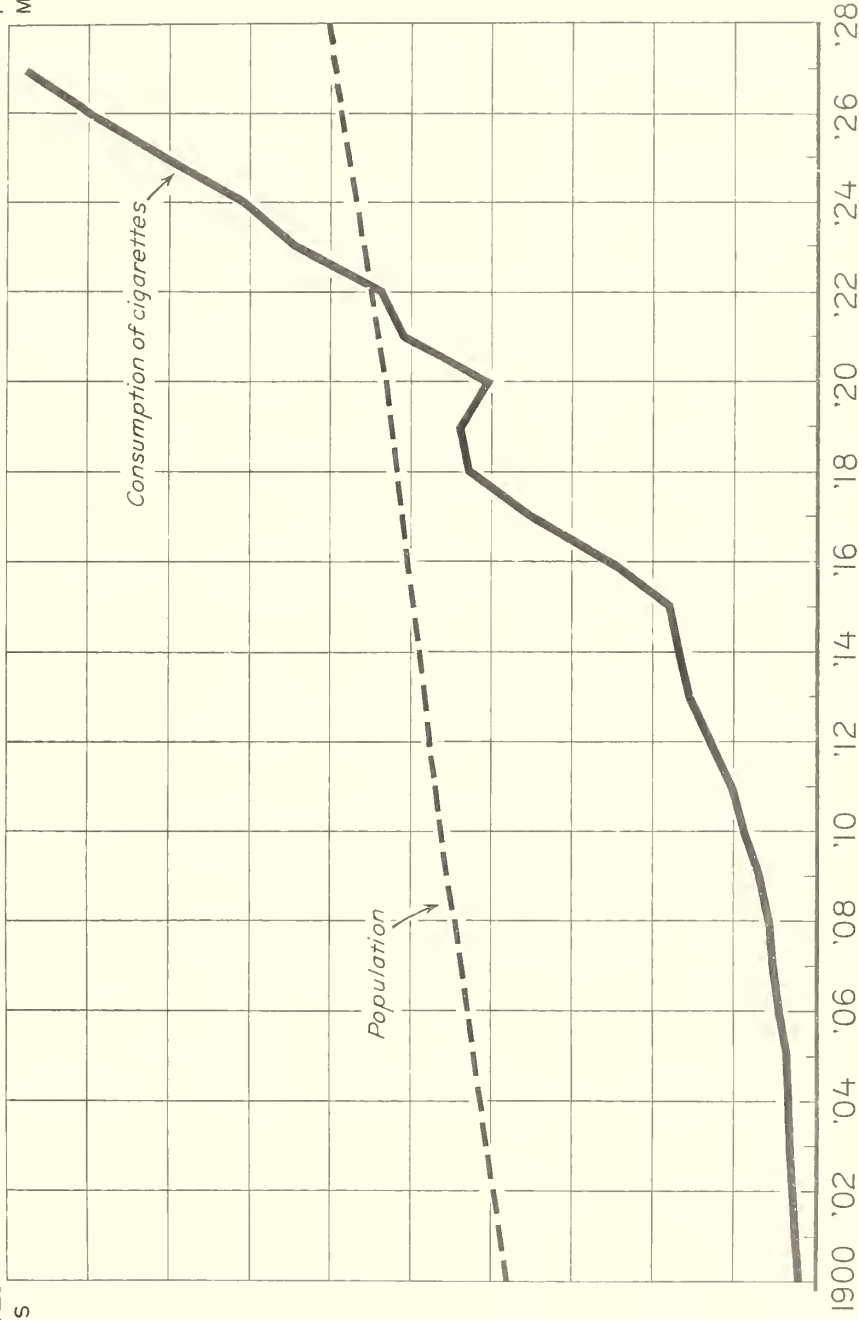
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CONSUMPTION OF CIGARETTES, AND POPULATION, 1900 - 1927

CIGARETTES
BILLIONS

PEOPLE
MILLIONS



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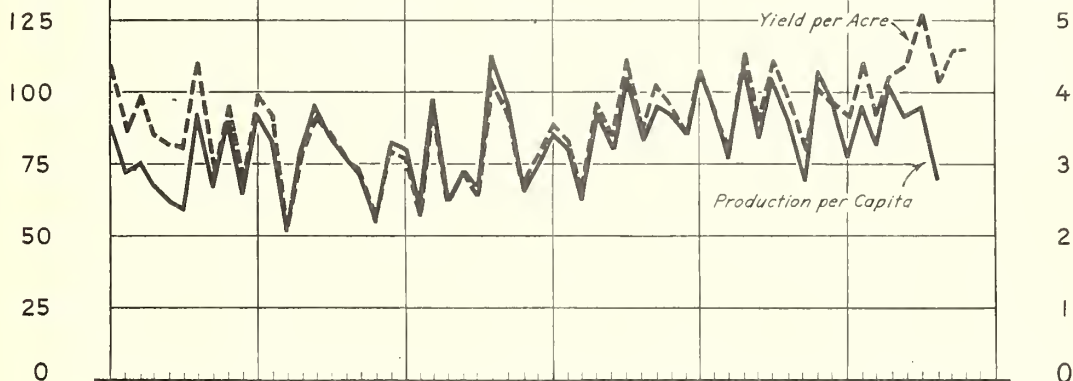
POTATOES

ACREAGE, YIELD PER ACRE, AND PRODUCTION

1869-1928

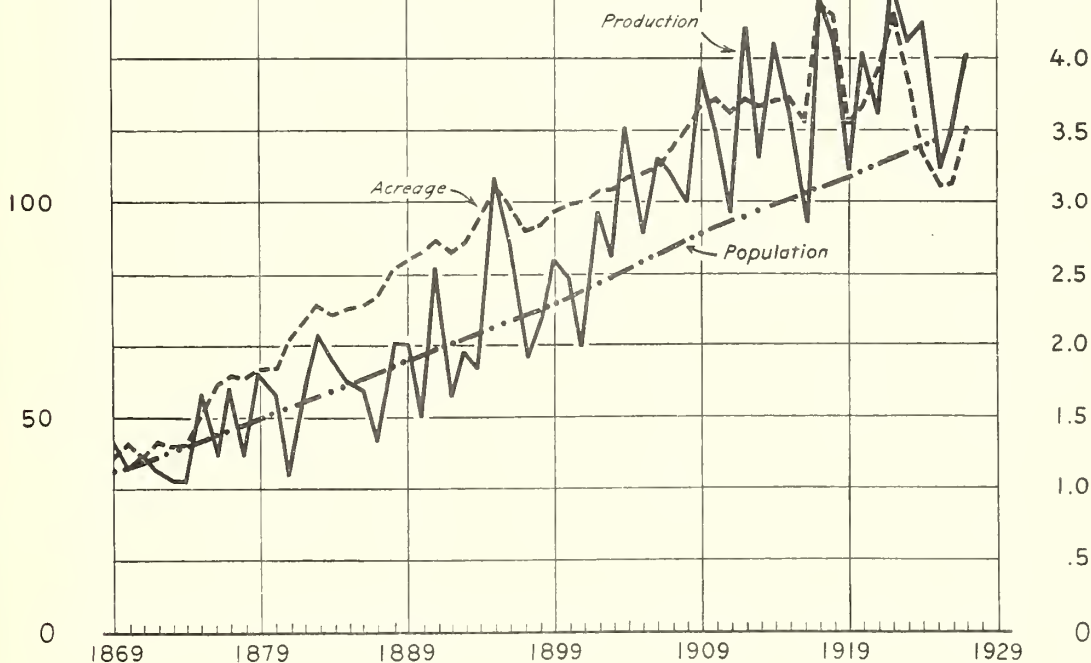
YIELD PER ACRE

BUSHEL
PER CAPITA

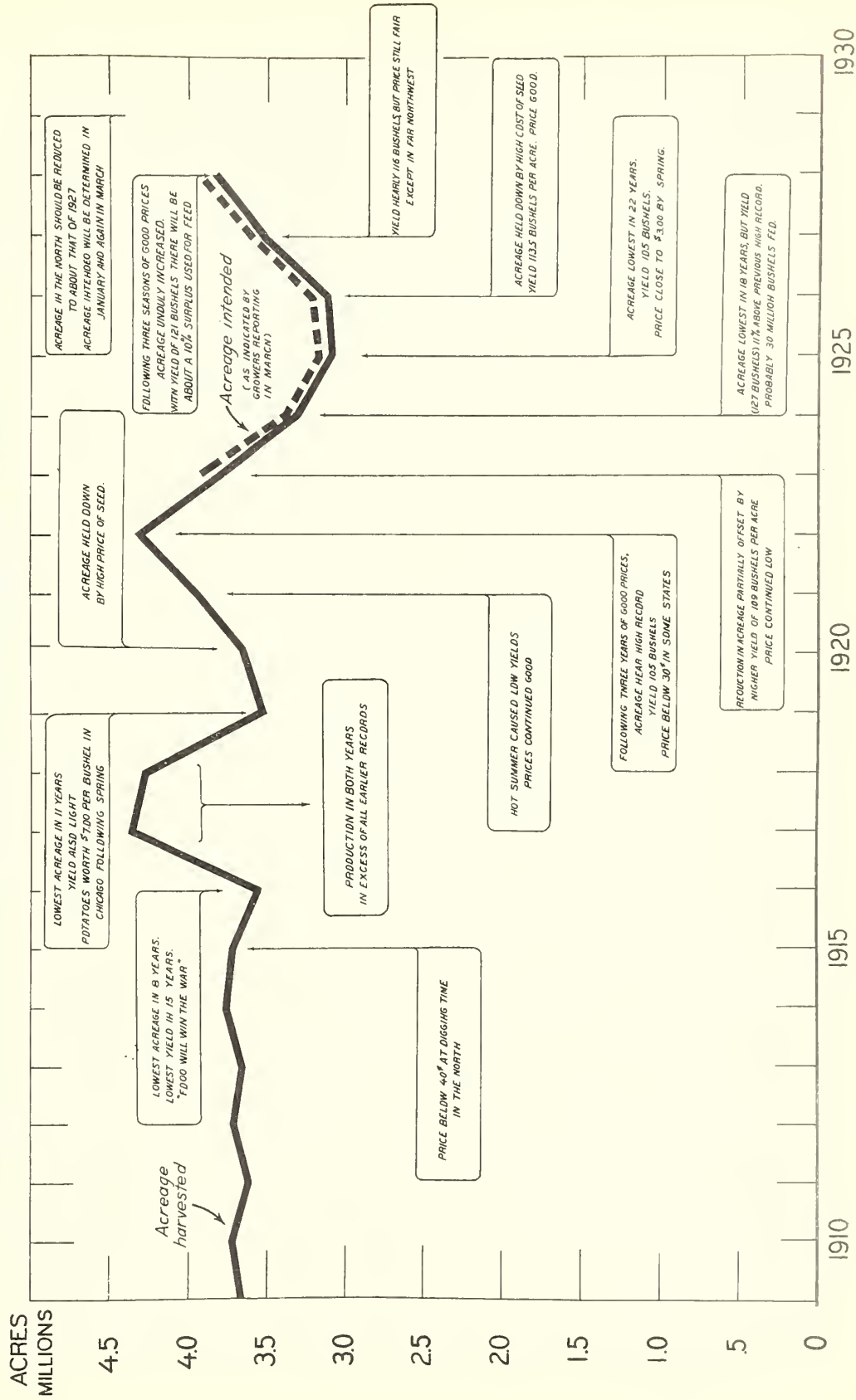


POPULATION
MILLIONS

ACREAGE
AND
PRODUCTION
MILLIONS



FACTORS AFFECTING POTATO ACREAGE IN THE UNITED STATES





PER CENT

325

300

275

250

225

200

175

150

125

100

75

50

RETAIL PRICES OF COMMODITIES FARMERS BUY
1910 - 1914 = 100

RELATIVE FARM PRICE OF POTATOES
AUG. 1909 - JULY 1914 = 100

--- Retail prices

_____ Farm price

DOLLARS PER BUSH.

2.265

2.091

1.917

1.742

1.568

1.394

1.220

1.046

.871

.697

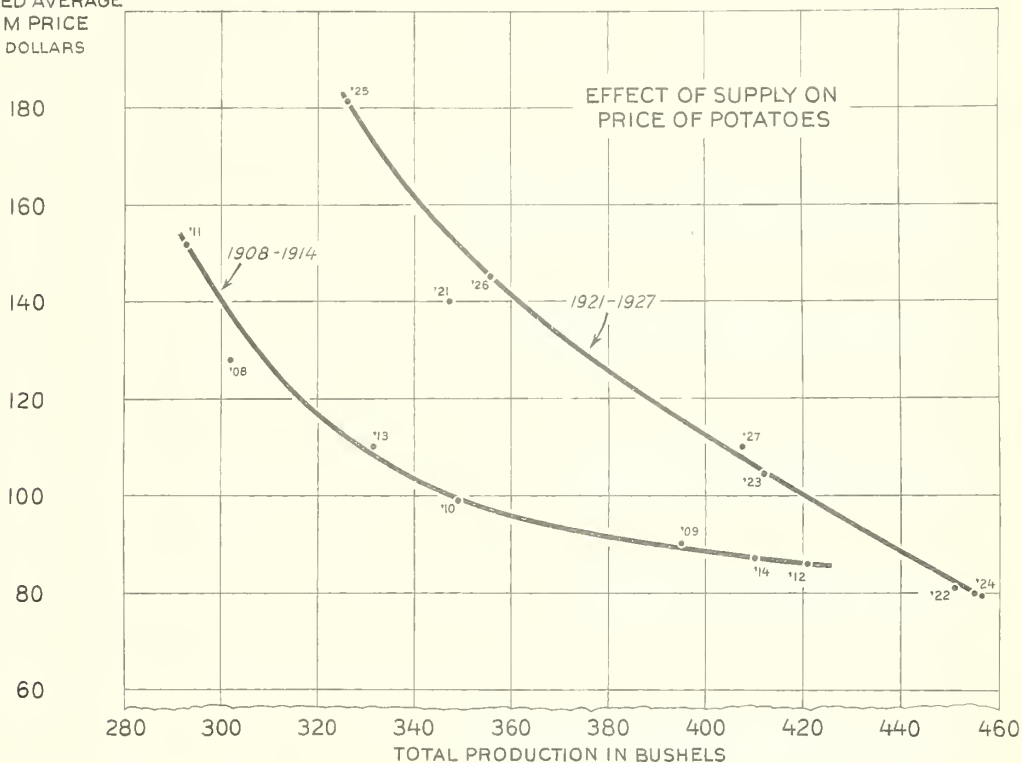
.523

.348

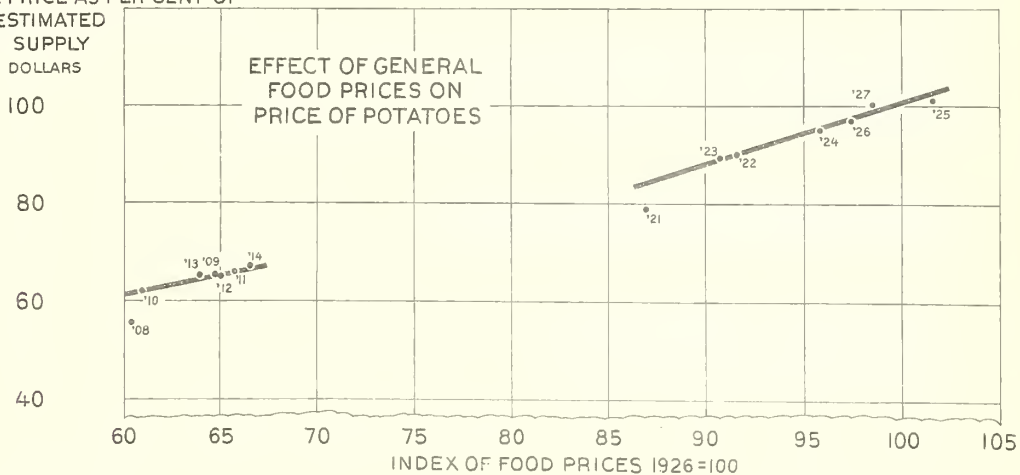
[illegible]

FACTORS AFFECTING THE YEARLY FARM PRICE OF POTATOES 1908 - 1914 and 1921 - 1927

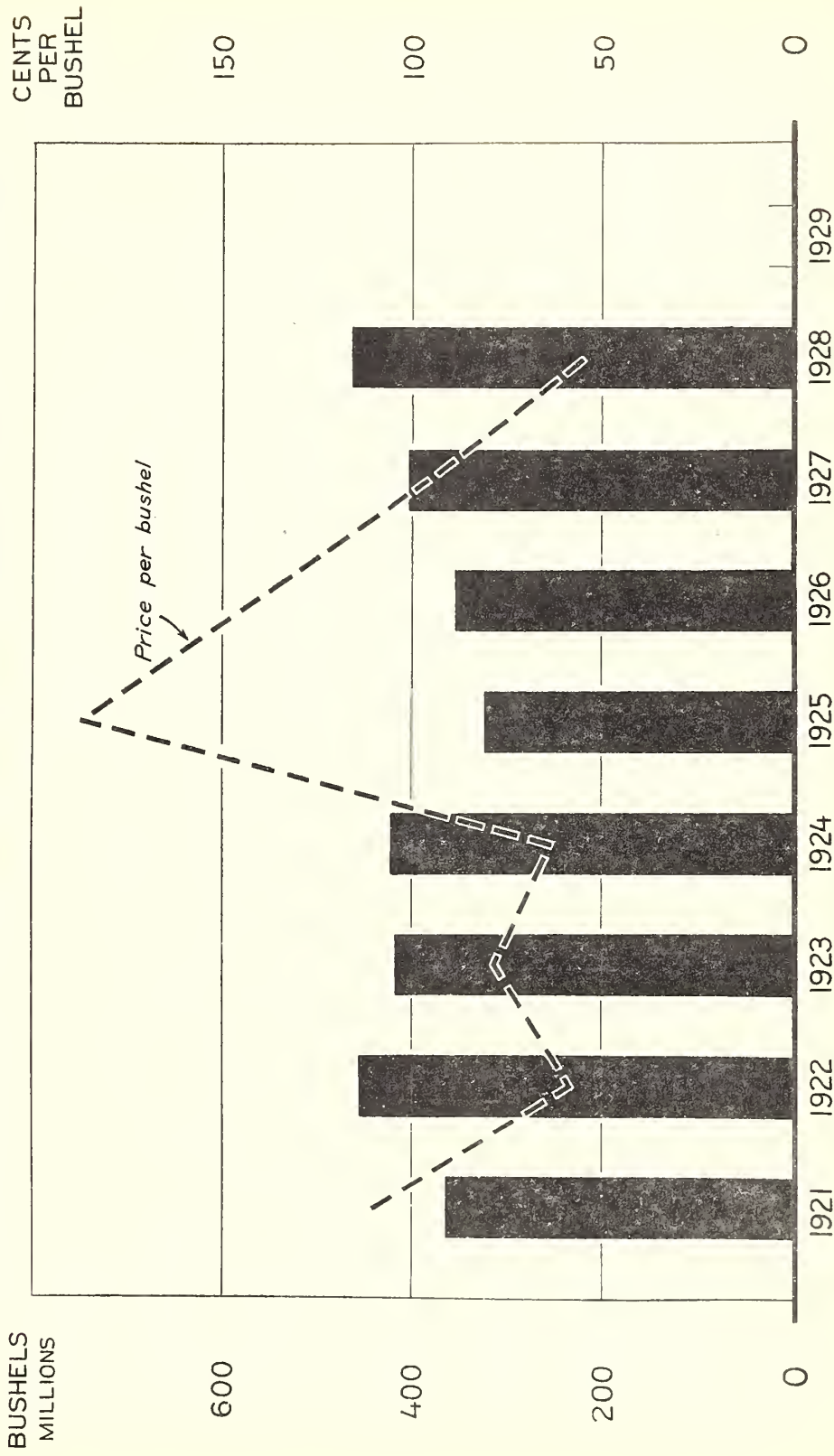
WEIGHTED AVERAGE
FARM PRICE
1926 DOLLARS



ACTUAL PRICE AS PER CENT OF
PRICE ESTIMATED
FROM SUPPLY
1926 DOLLARS



ALL POTATOES: PRODUCTION AND FARM PRICE, 1921-1928



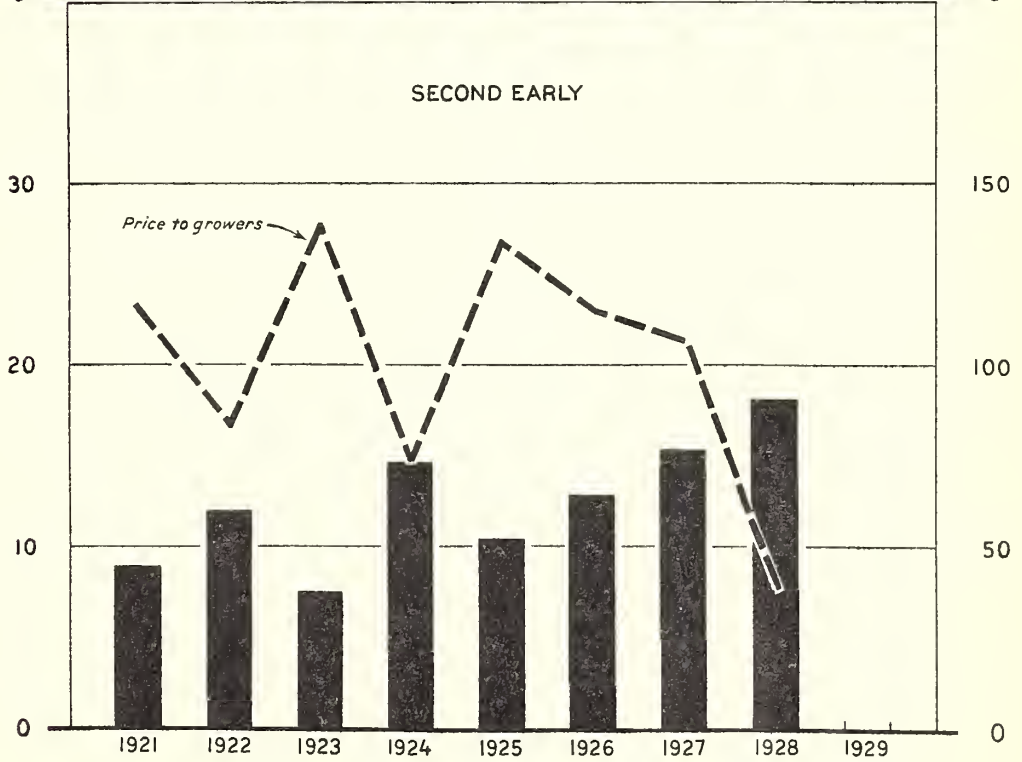
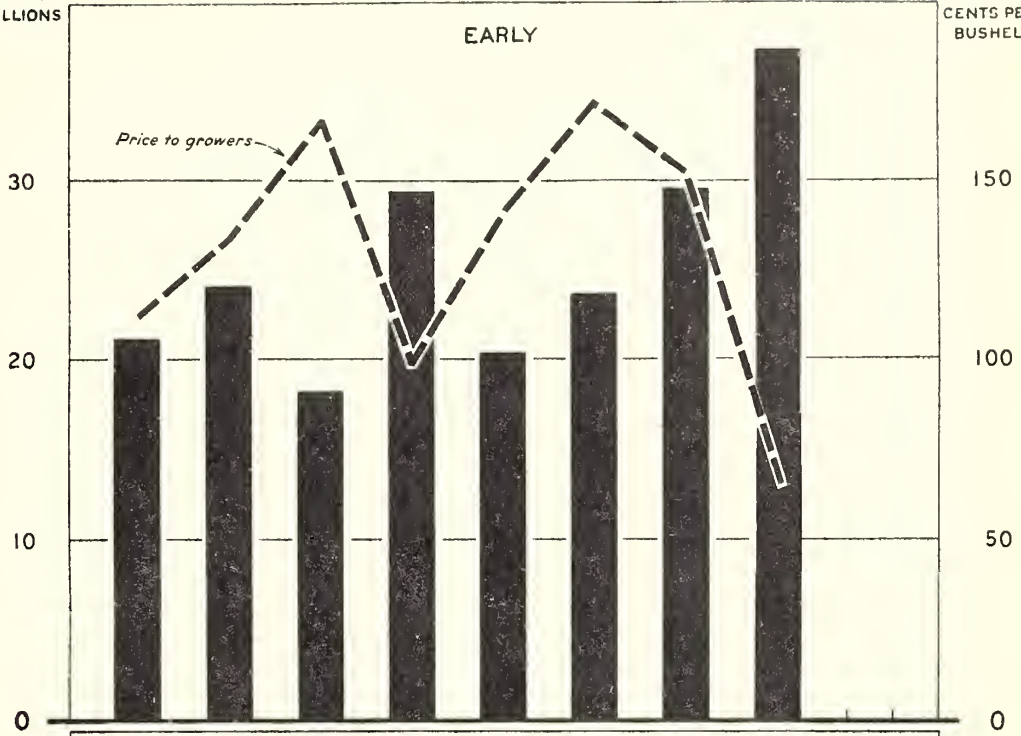


EARLY AND SECOND EARLY POTATOES

Production and Prices to Growers, 1921-1928

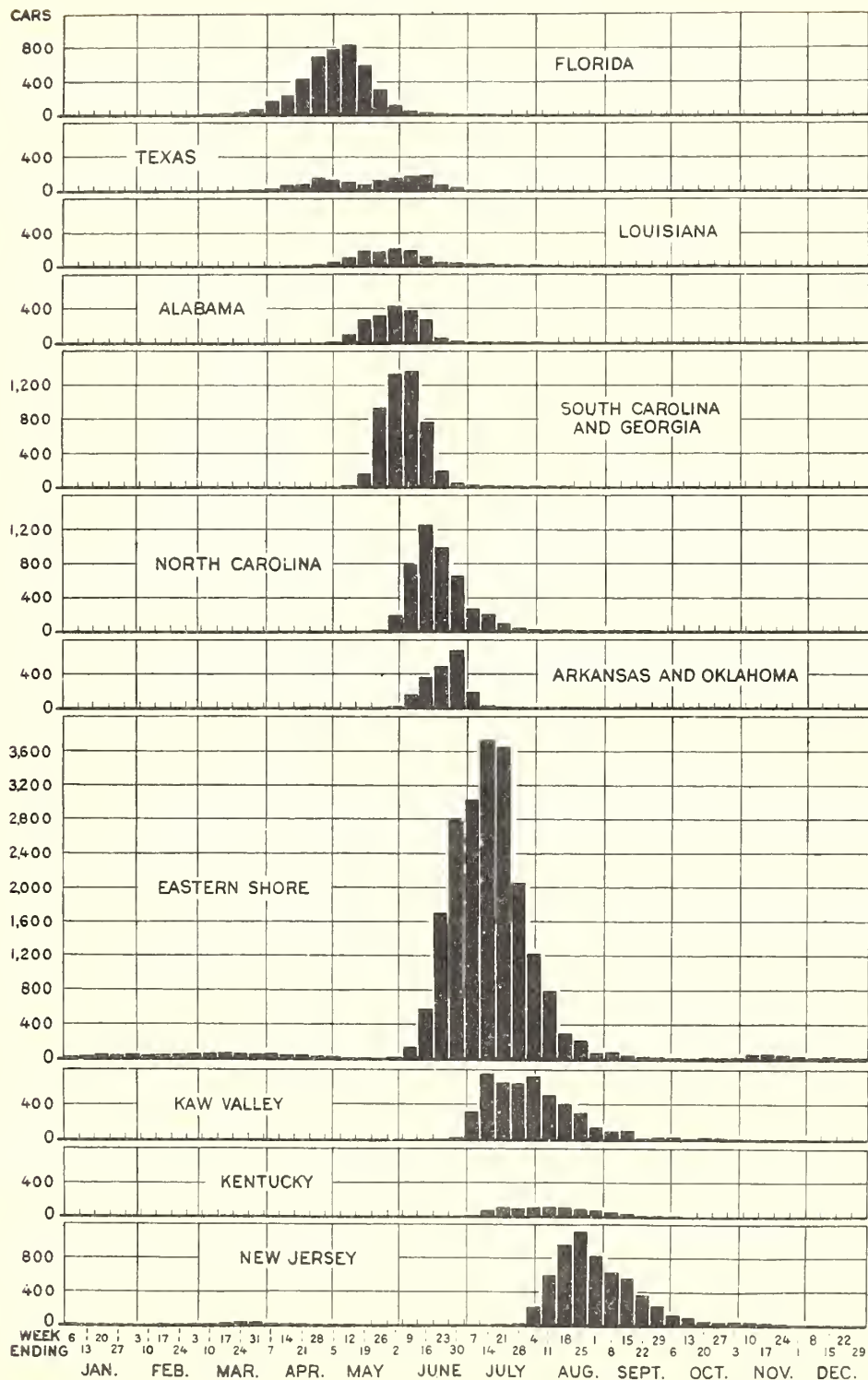
BUSHEL
MILLIONS

PRICE
CENTS PER
BUSHEL



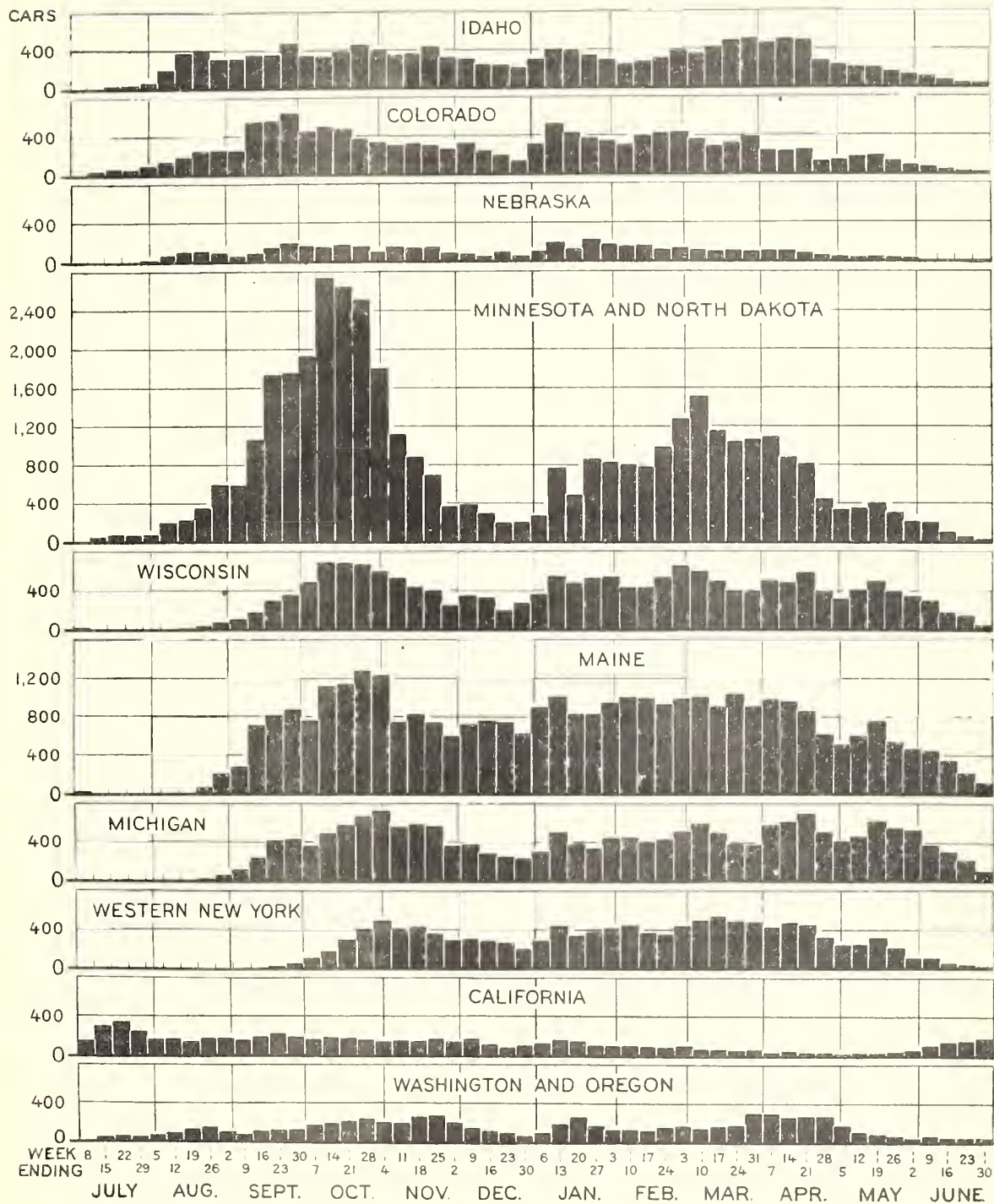
WEEKLY SUMMARY OF CARLOAD SHIPMENTS OF POTATOES BY NAMED AREAS

Three-Year Average, 1923-1925

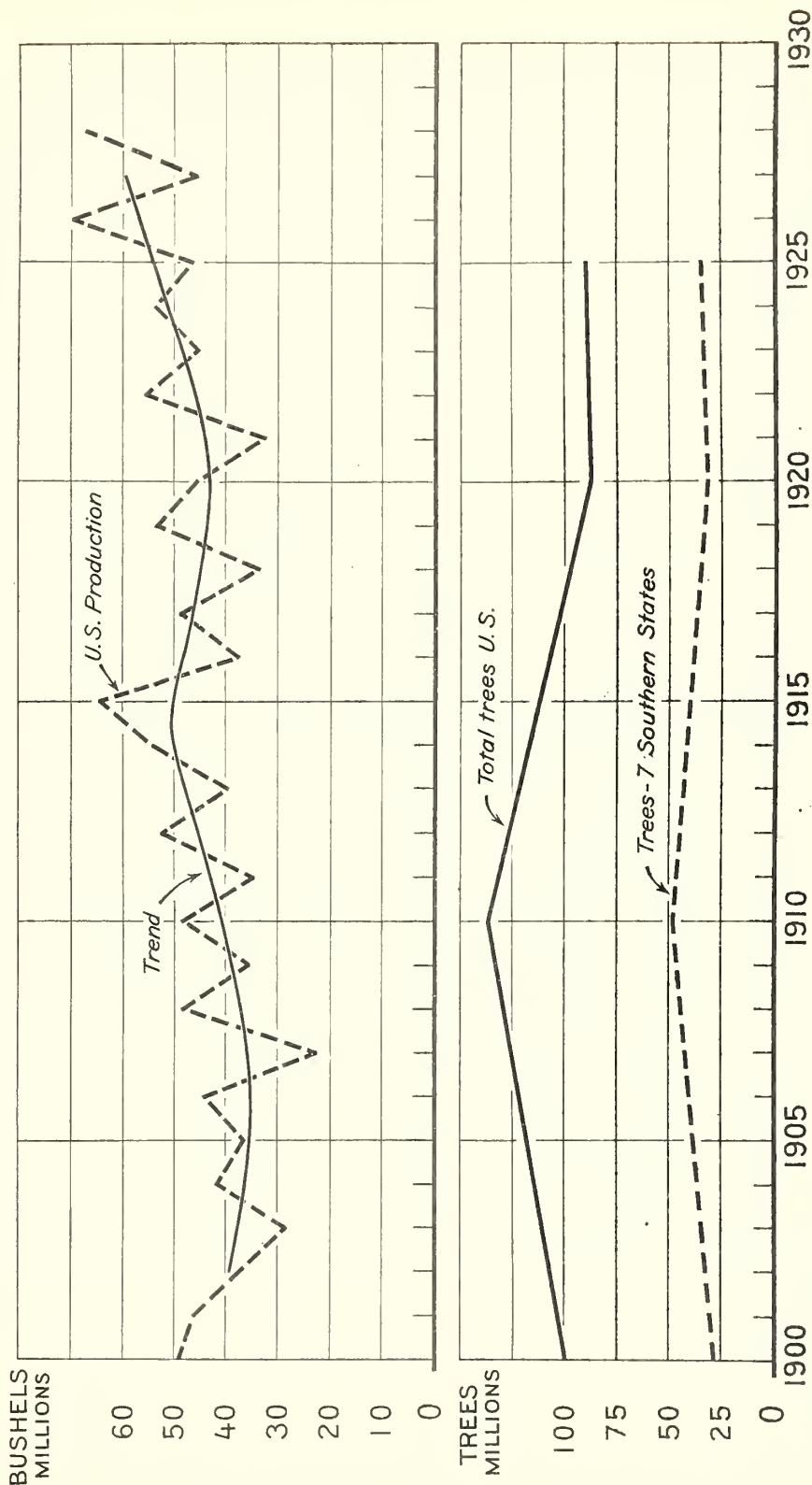


WEEKLY SUMMARY OF CARLOAD SHIPMENTS OF POTATOES BY STATES

Three-Season Average, 1922-23-1924-25



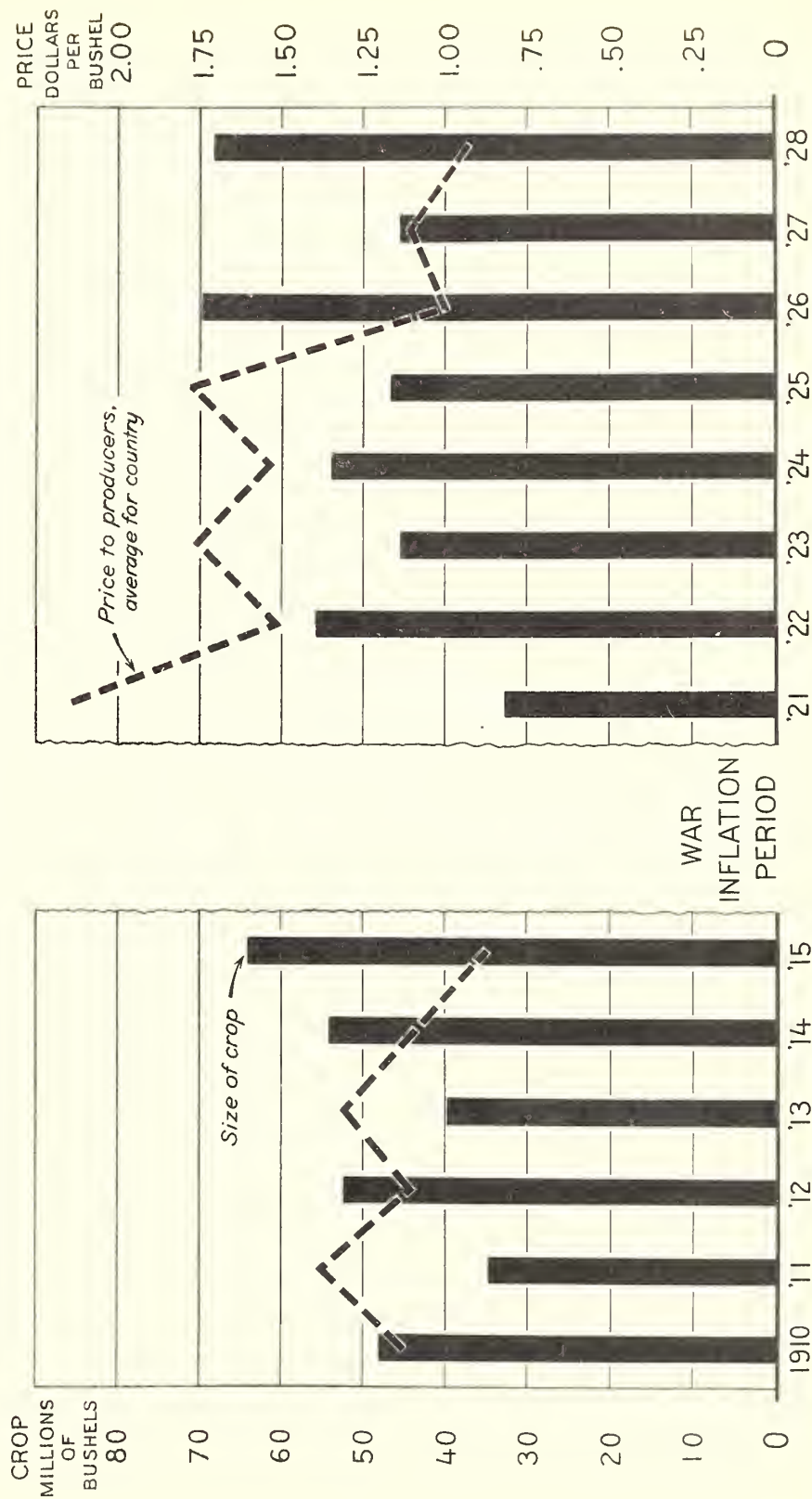
PEACHES: YEARLY PRODUCTION AND NUMBER OF TREES BY CENSUS PERIODS, 1900-1928



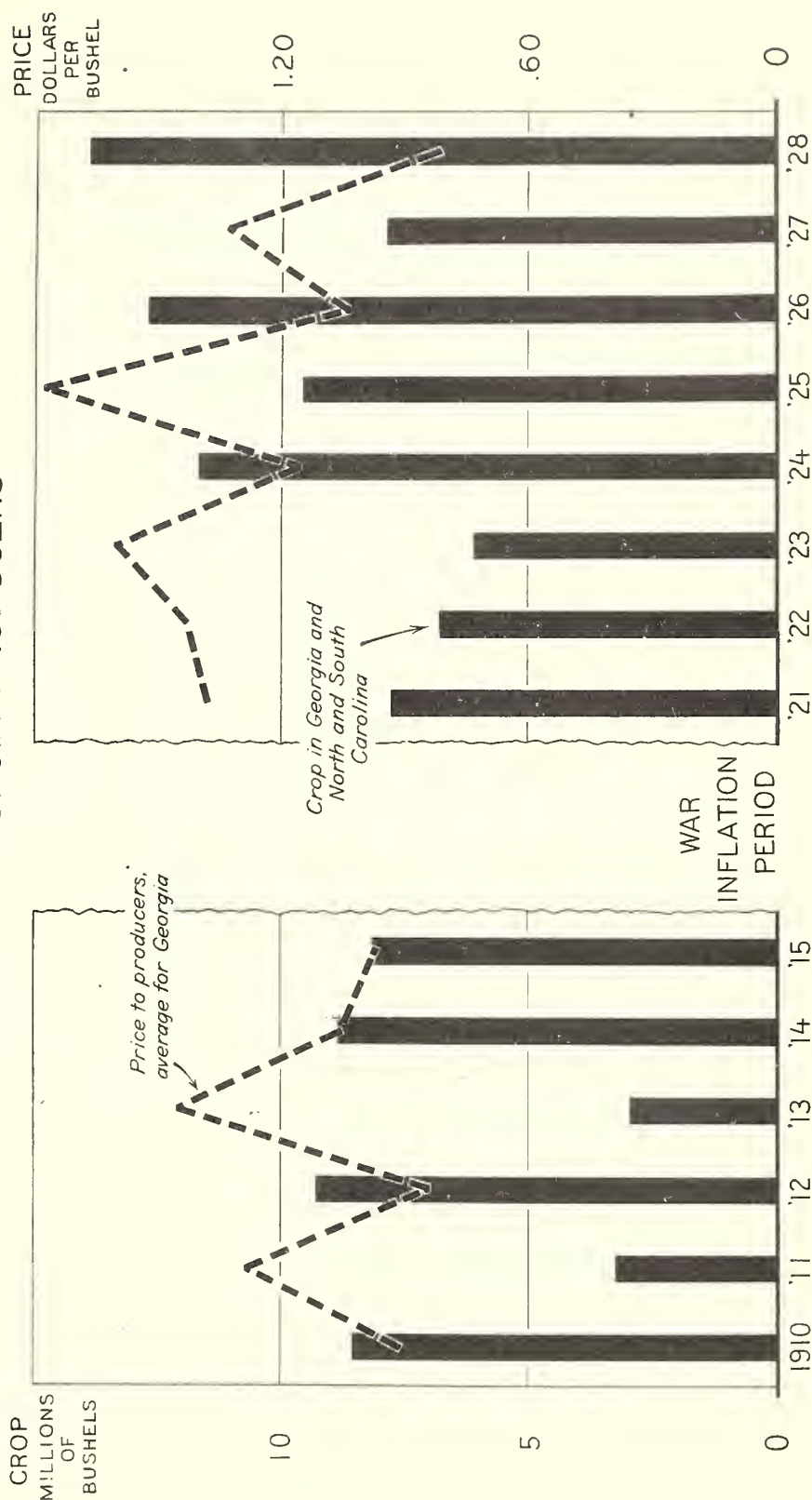
RELATIVE NUMBERS OF YOUNG AND OLD PEACH TREES IN VARIOUS STATES, 1925



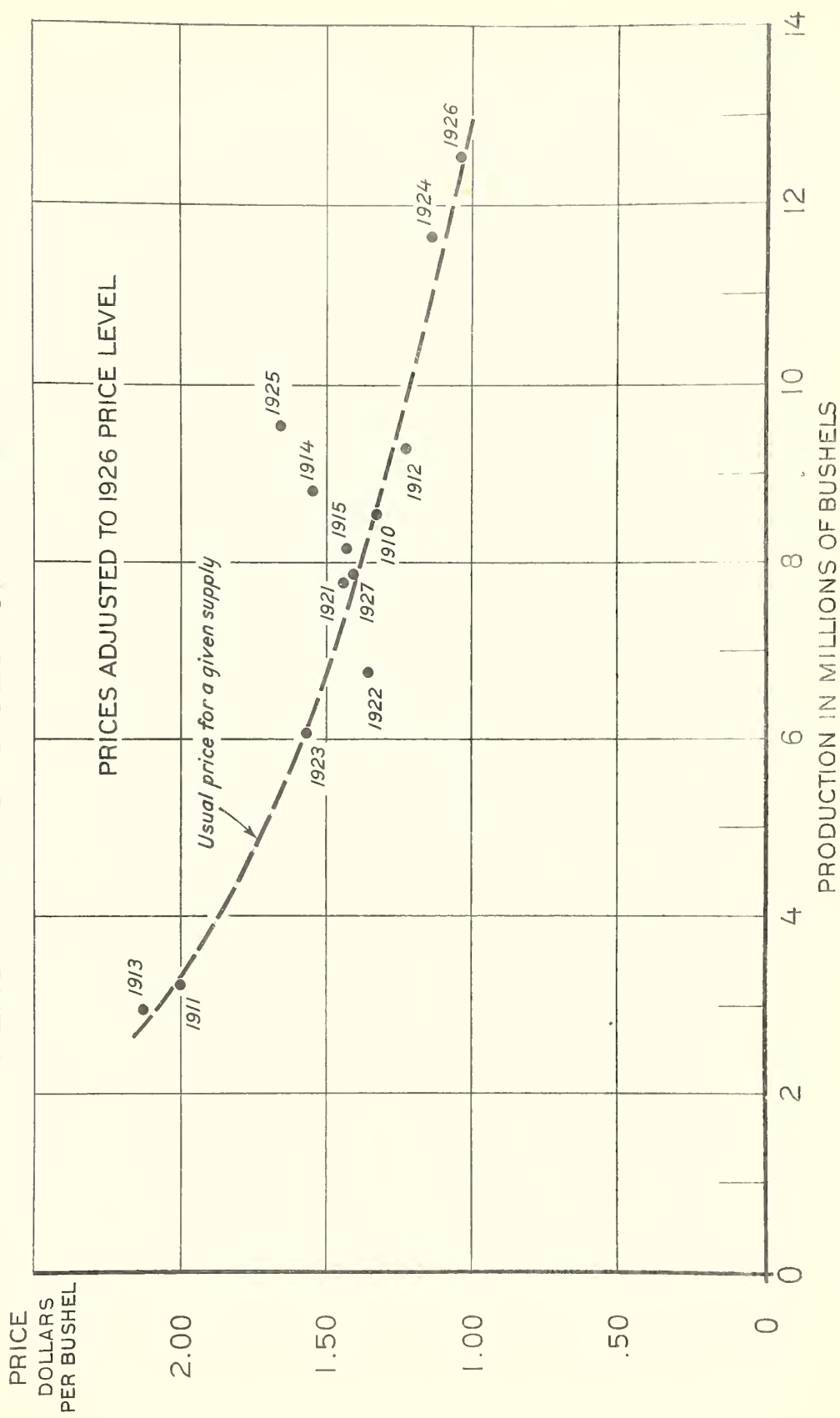
PEACH PRODUCTION AND PRICES TO PRODUCERS



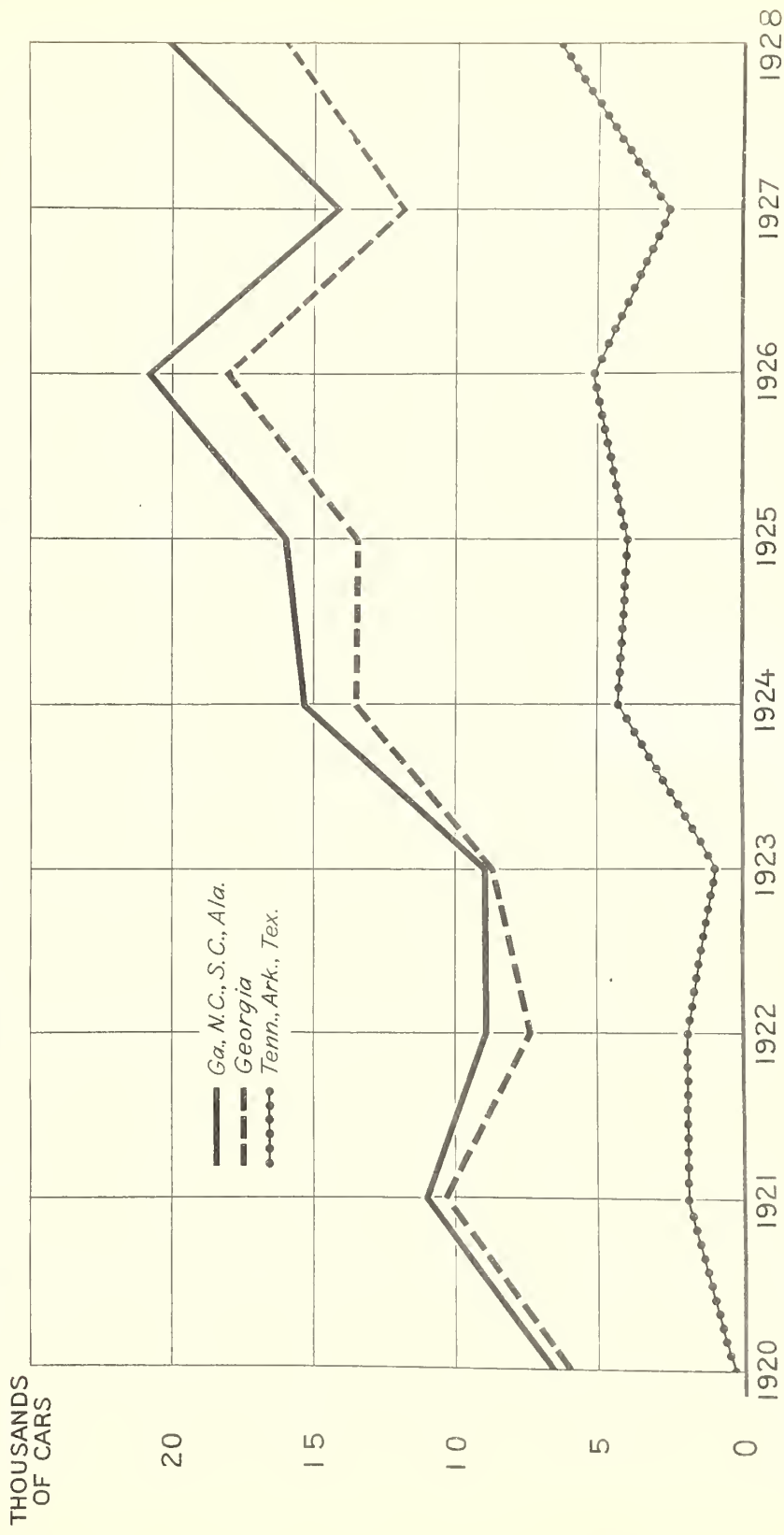
PEACH PRODUCTION IN GEORGIA AND THE CAROLINAS AND PRICES TO GEORGIA PRODUCERS



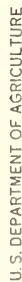
RELATION OF SIZE OF PEACH CROP IN GEORGIA AND THE CAROLINAS TO PEACH PRICES TO GEORGIA FARMERS



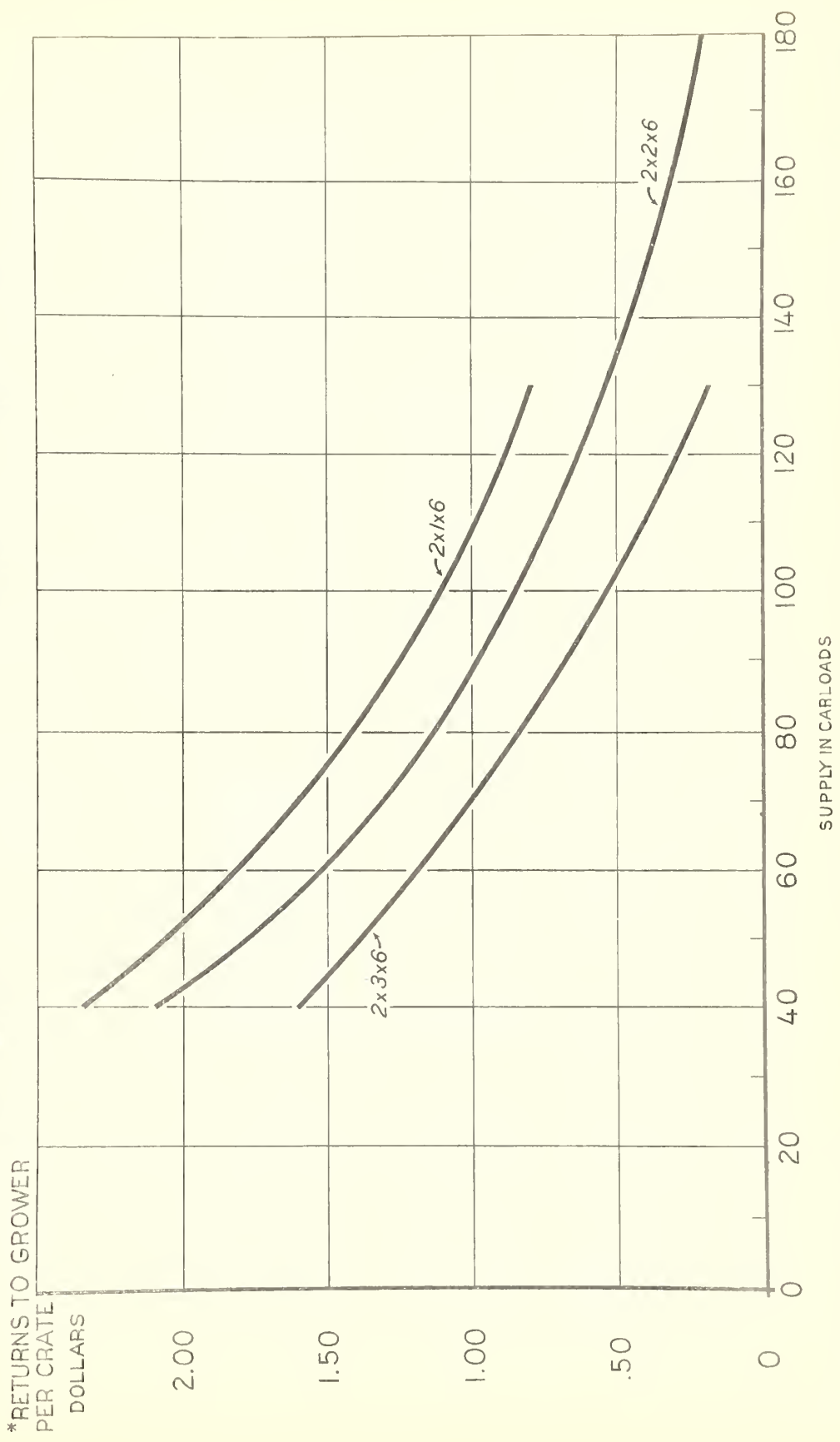
CARLOAD SHIPMENTS OF SOUTHERN PEACHES, 1920-1928



1926



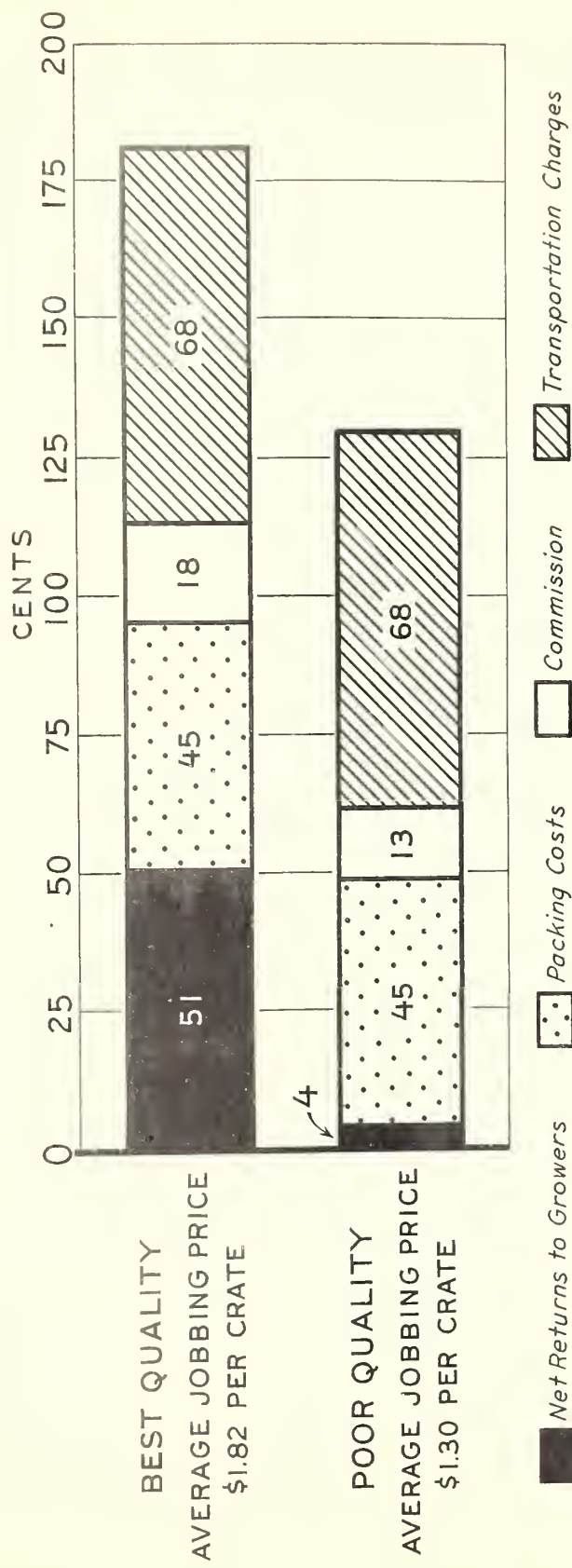
RELATION BETWEEN DAILY SUPPLY OF PEACHES AT NEW YORK AND RETURNS FOR ELBERTA PEACHES BY SIZES, 1924



*RETURNS TO GROWER
PER CRATE
DOLLARS

NET RETURNS TO GROWER FOR GEORGIA ELBERTAS

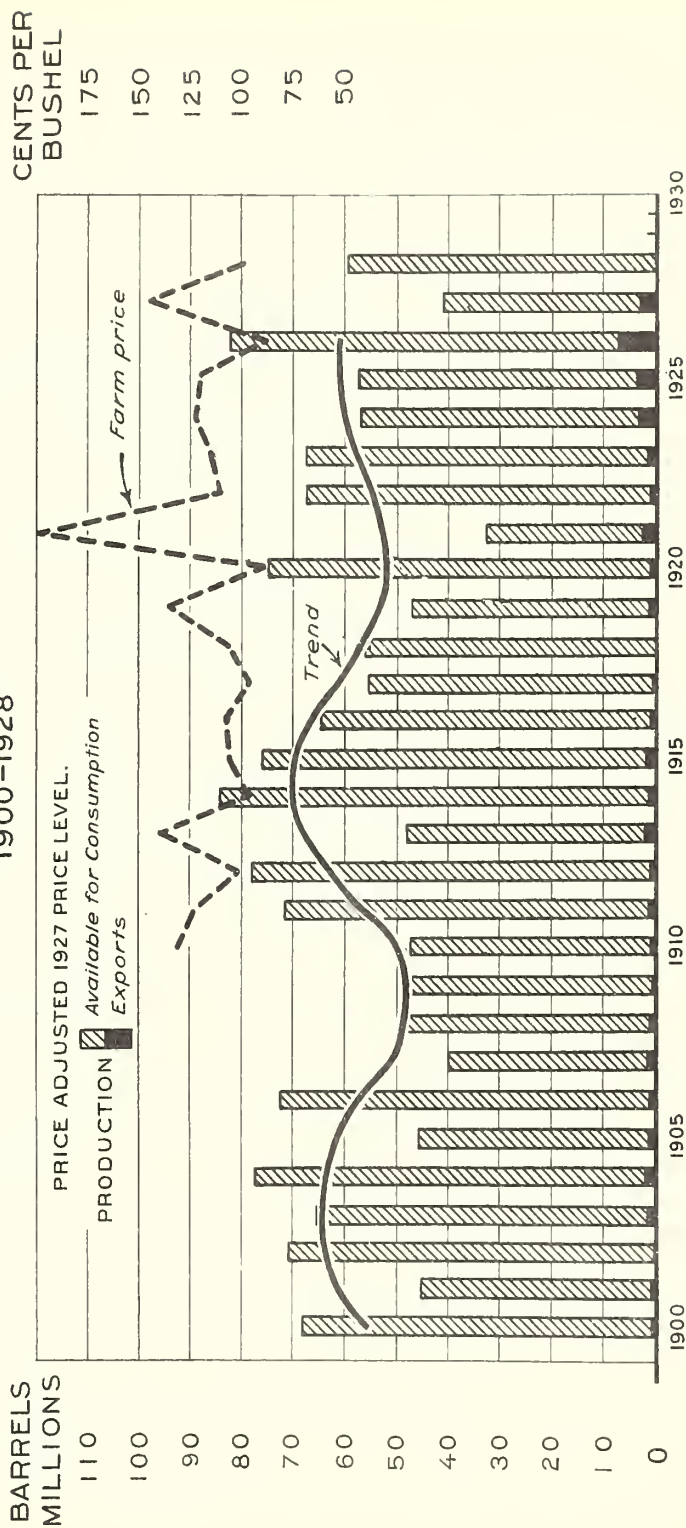
Consigned to New York, 1926



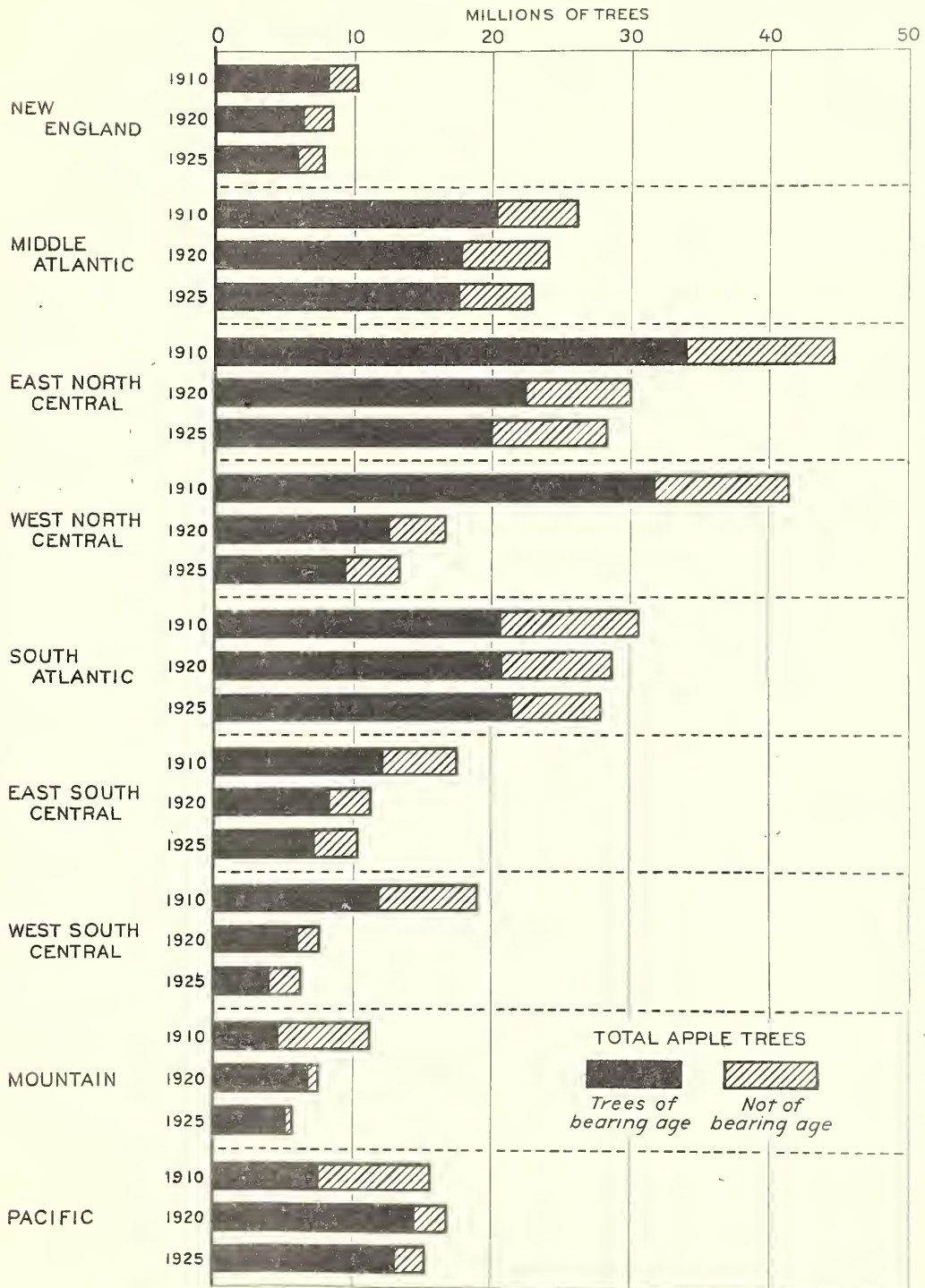
U. S. DEPARTMENT OF AGRICULTURE

BUREAU OF AGRICULTURAL ECONOMICS

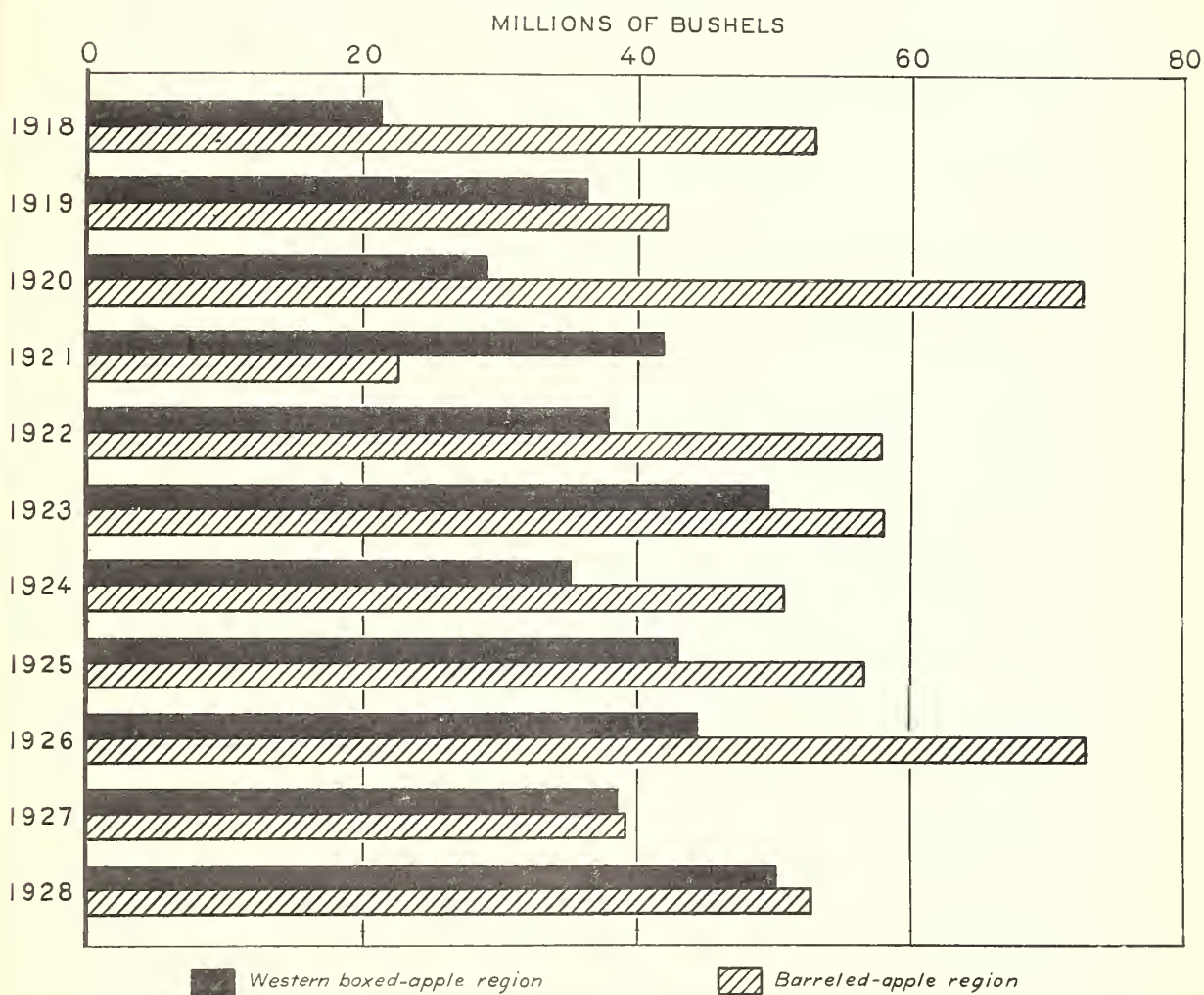
APPLE PRODUCTION, EXPORTS, AND ADJUSTED FARM PRICE 1900-1928



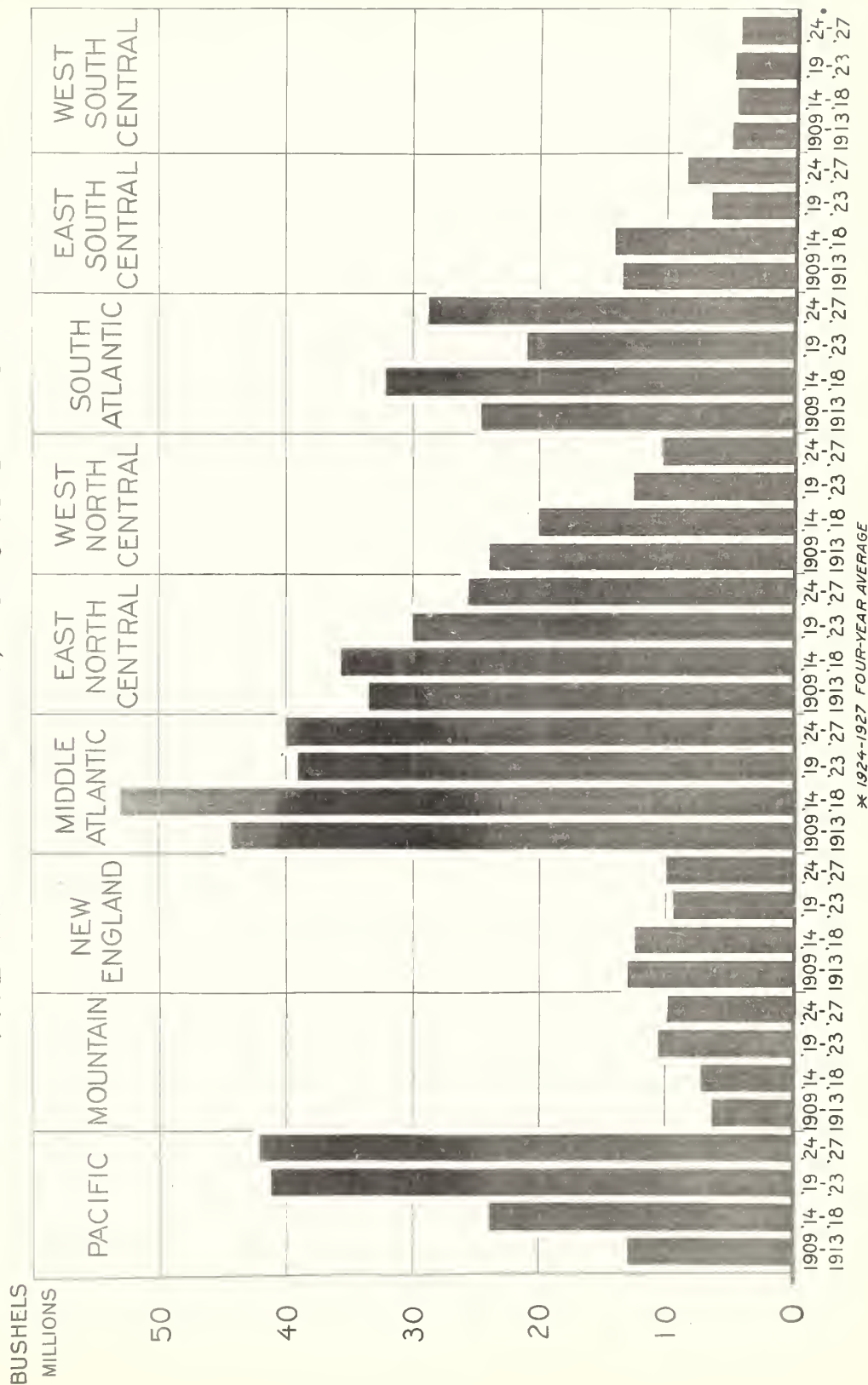
APPLE TREES: NUMBER IN EACH GEOGRAPHIC DIVISION 1910, 1920, AND 1925



APPLES COMMERCIAL PRODUCTION, BY REGIONS 1918-1928



TOTAL PRODUCTION OF APPLES BY GEOGRAPHIC DIVISIONS FIVE-YEAR AVERAGES, 1909-1913 — 1924-1927 *



PRICE PER BUSHEL

PRE-WAR
DOLLARS

PRICE PER BUSHEL

1927
DOLLARS

1.30

1.20

1.10

1.00

.90

.80

.70

.60

1.95

1.80

1.65

1.50

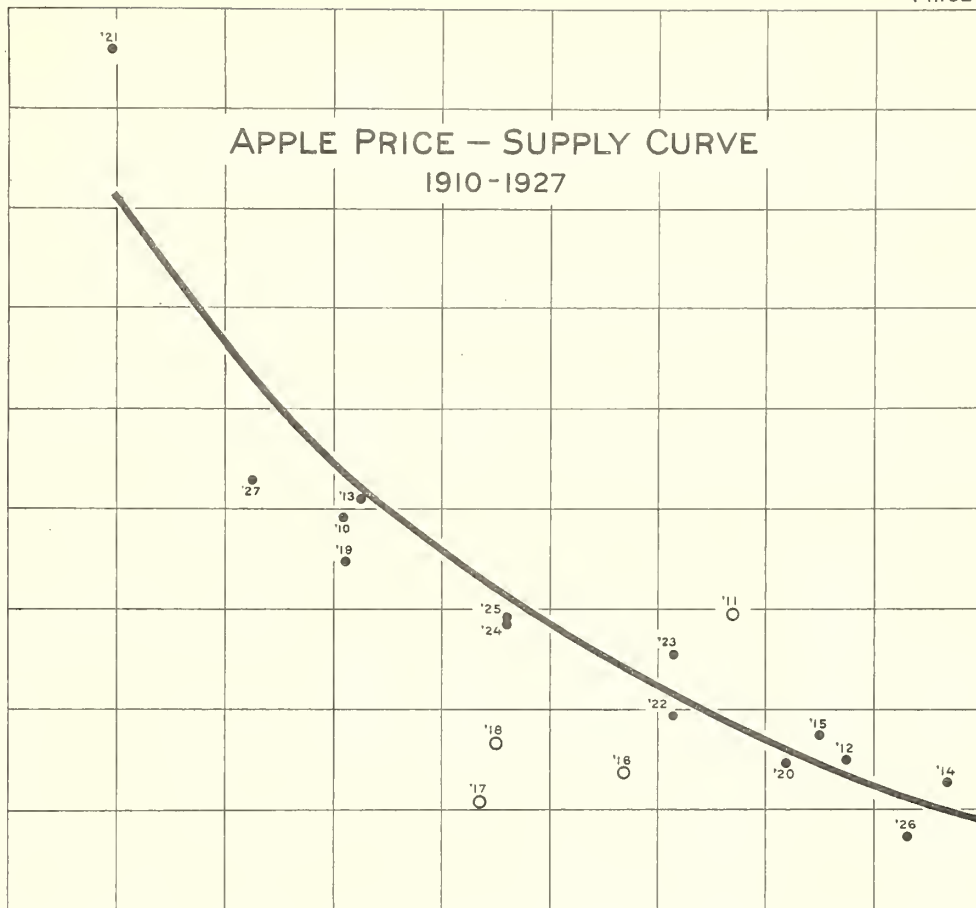
1.35

1.20

1.05

.90

APPLE PRICE — SUPPLY CURVE 1910-1927



VALUE
MILLIONS OF
PRE-WAR
DOLLARS

VALUE
MILLIONS OF
1927
DOLLARS

150

140

130

120

110

100

225

210

195

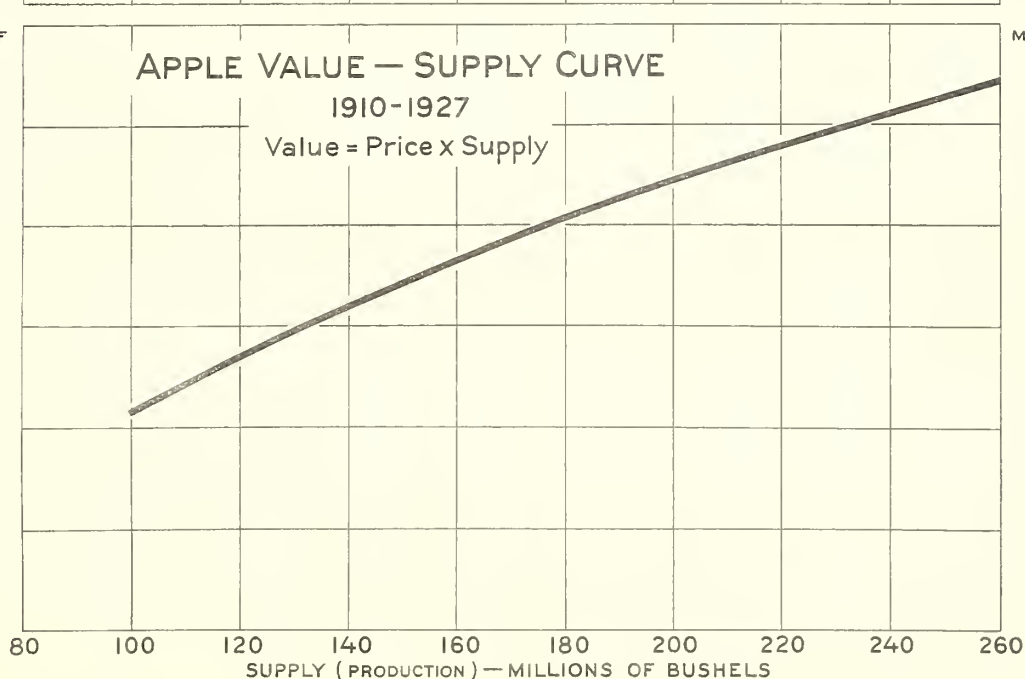
180

165

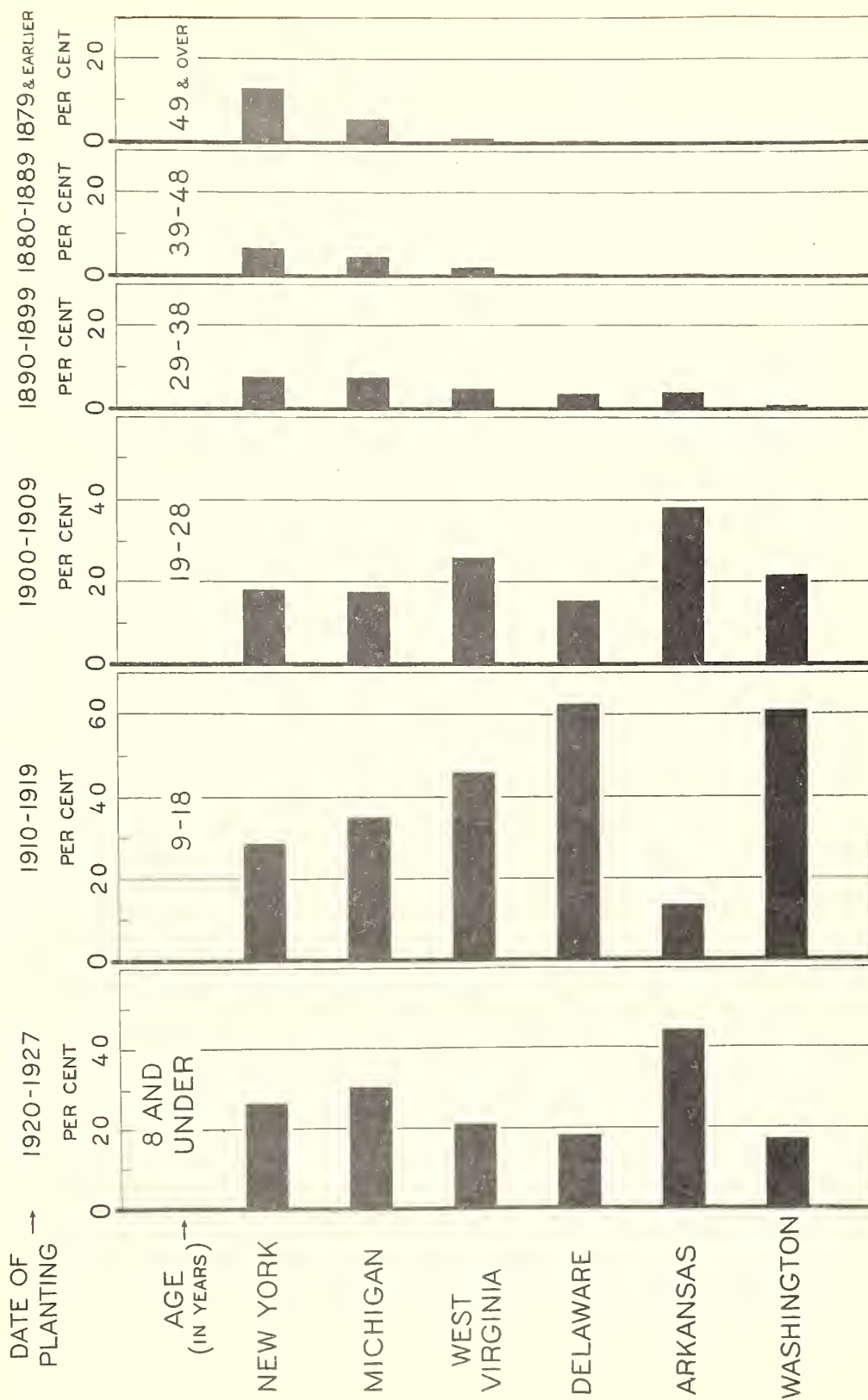
150

APPLE VALUE — SUPPLY CURVE 1910-1927

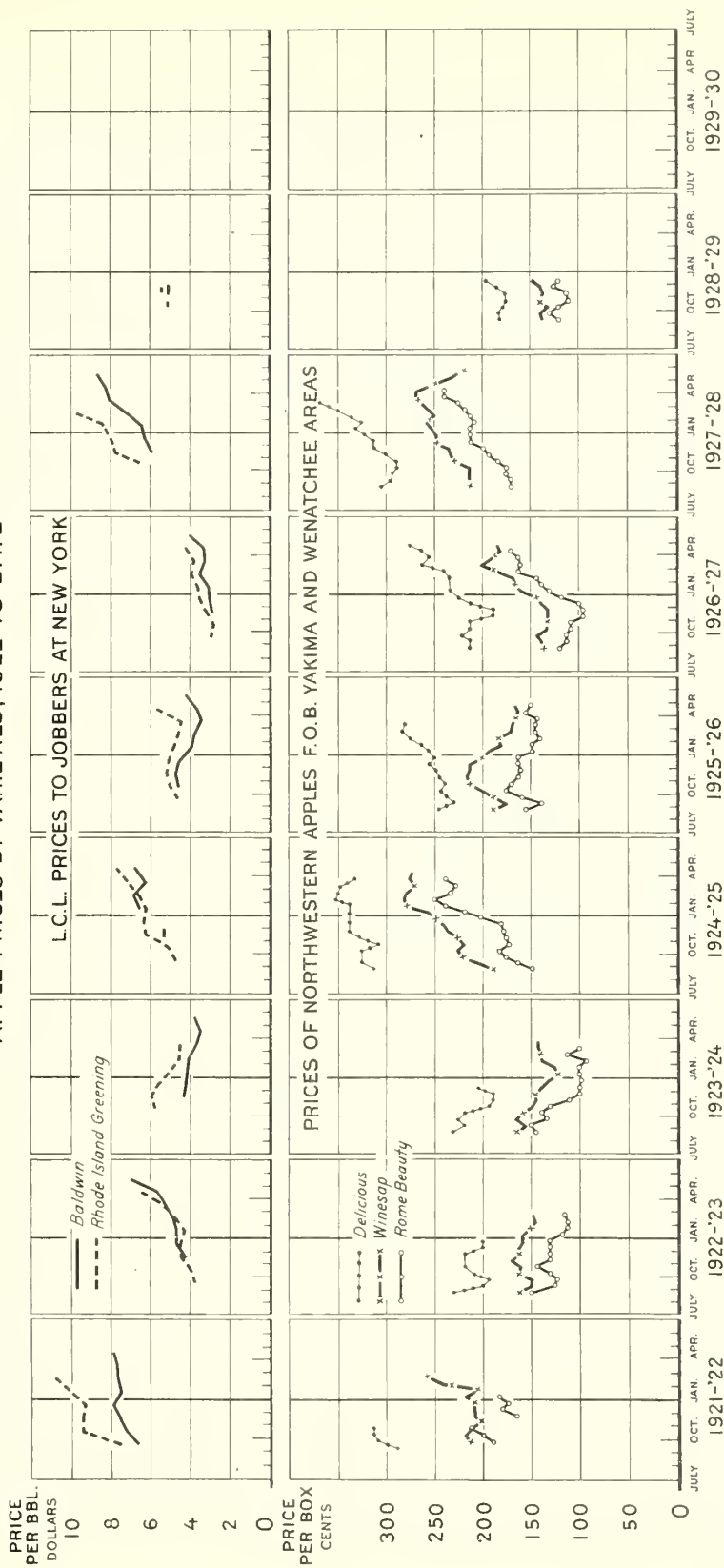
Value = Price x Supply



APPLE TREES IN COMMERCIAL ORCHARDS: PER CENT IN EACH AGE GROUP SELECTED STATES, JANUARY 1, 1928



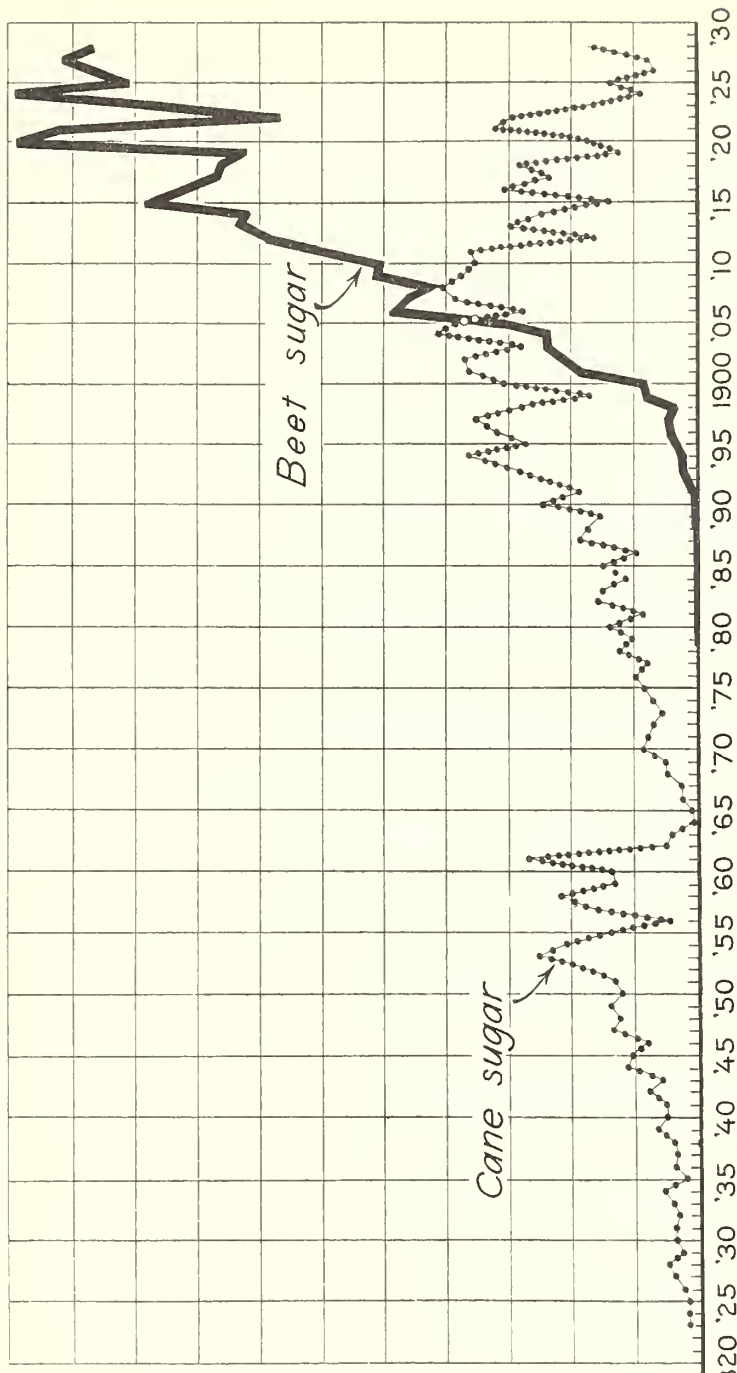
APPLE PRICES BY VARIETIES, 1922 TO DATE



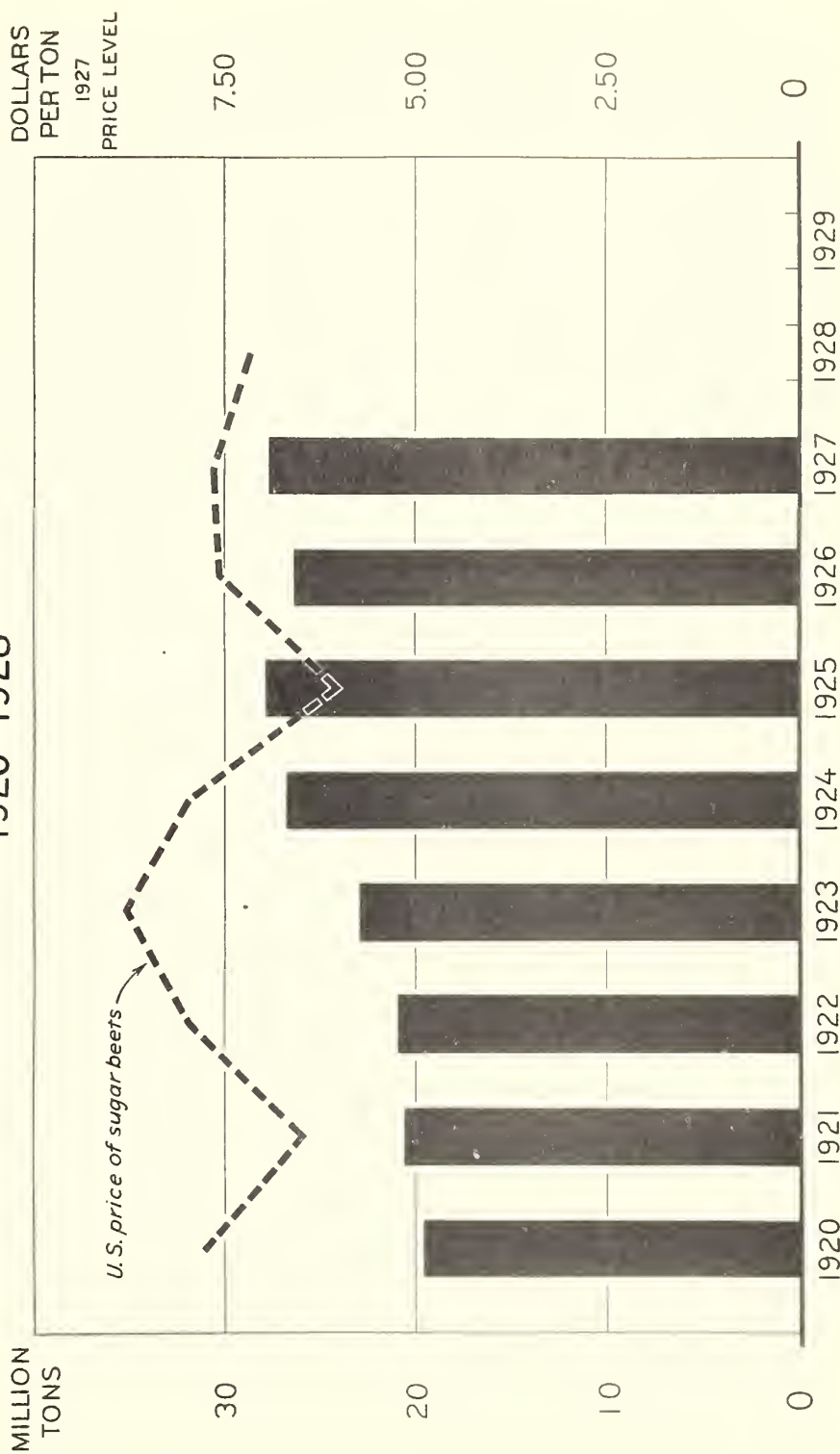
SUGAR PRODUCTION IN CONTINENTAL UNITED STATES 1823-1928

SHORT TONS
THOUSANDS

1,000
900
800
700
600
500
400
300
200
100
0



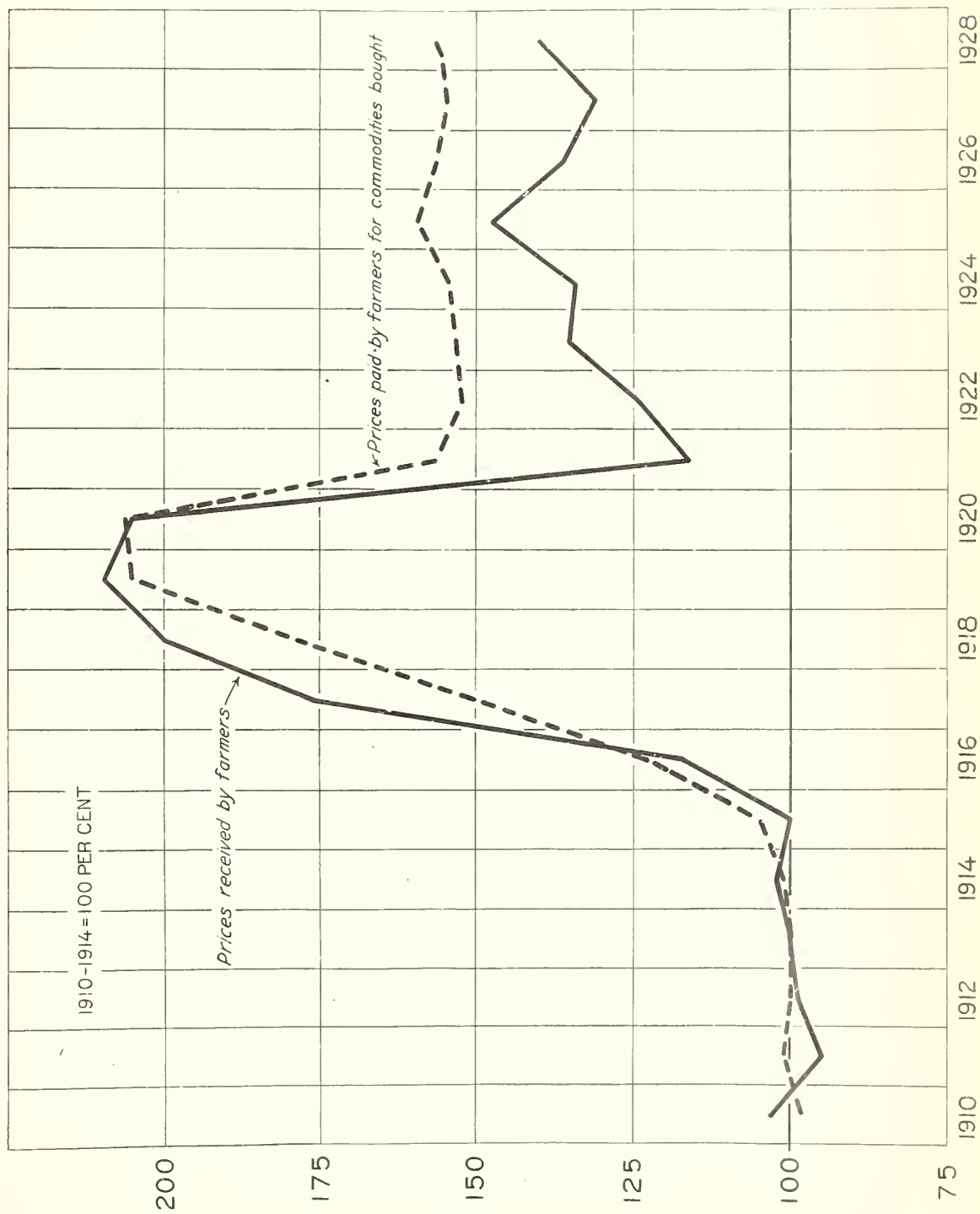
WORLD PRODUCTION OF SUGAR AND U. S. PRICE OF SUGAR BEETS 1920-1928



U. S. DEPARTMENT OF AGRICULTURE

BUREAU OF AGRICULTURAL ECONOMICS

INDEX NUMBERS OF PRICES RECEIVED BY FARMERS, PRICES PAID BY FARMERS 1910-1928



MONTHLY AVERAGE 1923-1925=100

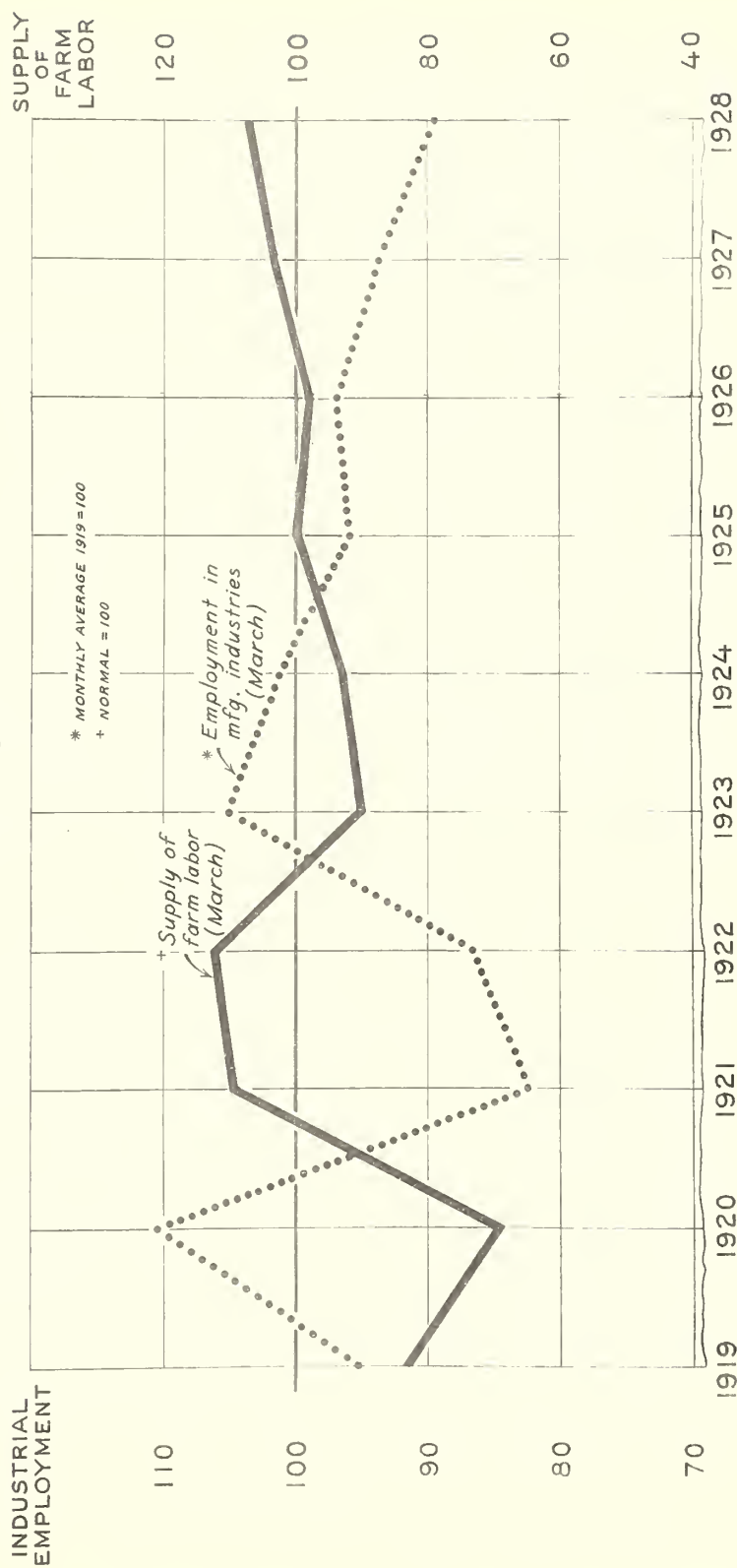
Production

Payrolls

* FEDERAL RESERVE BOARD

BUREAU OF AGRICULTURAL ECONOMICS

SUPPLY OF FARM LABOR AND INDUSTRIAL EMPLOYMENT 1919 - 1928



CORN

1. Farm Prices of Corn and Index of retail prices of Commodities Farmers Buy. 1910-1928.

The general level of corn prices since the War has been lower than the level of retail prices of commodities farmers buy, except during the year July 1924 to June 1925. The price of corn fluctuates rather violently from year to year, dependent upon many factors, the principal ones being the number of hogs and other livestock to be fed and the size of the corn crop. In normal years the price of corn rises from late fall to the following summer and lowers during the fall and early winter.

2. Percentage of Total Corn Crop Produced in Geographic Divisions. 1909-1928.

There has been a general tendency in recent years for a larger percentage of the total corn crop to be produced in the Corn Belt of the United States. This increased percentage of the total crop has come mainly from the corn belt states west of the Mississippi river. Fluctuations in production of corn are greatest in the states of Kansas, Nebraska and South Dakota, in some years these three states having twice as much corn produced as in other years, as in the years 1927 and 1926. In 1927 the crop in these states was large, while in other states of the corn belt it was much below normal. The increased proportion of the corn crop being produced west of the Mississippi has resulted in increased hog production in those areas, especially in the northern half of the west corn belt. Corn production in the South has tended to decrease both actually and on a percentage basis. Under present farming conditions the production of corn in the United States has reached a maximum, the acreage having a tendency to decrease in the last ten years.

OATS

1. Oats: Acreage, Production, Yield and Farm Price, United States, 1866-1928.

The general trends of both the acreage and production of oats continues to be rather steadily upward. The price which has prevailed for oats since the war is about on the same level as obtained before the war. This indicates a relative unfavorable position compared with other feed grains and most other agricultural commodities, the general position of which has been somewhat near 40 per cent higher since the war than before. The yield per acrea of oats has had a rather definite trend upward since 1890, but the average has been about 32 bushels per acrea since 1915. The ease of growing an oats crop, its use as the small grain crop in which to start clover in crop rotations, its lack of serious crop failures, and its lack of conflict in labor demands on the general farms in the middle-west are some of the factors responsible for its increasing production in spite of the relatively low prices.

2. Farm Prices of Oats and Index of Retail Prices of Commodities Farmers Buy. 1910-1928.

Since the War the farm price of oats has been much lower than the retail prices of commodities farmers buy, on the basis of pre-war relations. In the spring of 1928 the price of oats was highest of any time since the War, but declined rapidly during the summer and fall months to about 37 cents per bushel. The decreased demand for oats may be

attributed partly to the decreased number of horses, oats being one principal horse feed in many areas. In general the price of oats is lowest in the fall and rises to the highest seasonal price in late spring. The price of oats is governed to a great extent by the supply of oats, corn and barley, and the number of animals to which it must be fed.

3. Production and Carryover of Oats and Corn in Tons
and Adjusted Price of Oats Per Bushel. 1910-1928.

The price of oats is not determined mainly by the production of oats, but by the production of feed grains, principally corn, oats and barley. The total production of corn and oats in any one year regulates to a considerable extent the price of oats, but the demand for corn and oats in livestock feeding is an important factor. From 1920 to 1924 the total production of corn and oats decreased, and the price of oats increased accordingly. Fluctuations in the production of oats alone seem to have very little relation to oats price fluctuations. The total production of corn and oats fluctuates through rather narrow limits.

WHEAT

1. Wheat Production - Leading Countries 1891-1928.

The United States and Russia are the principle wheat producing countries, although Russia since the War has exported very little. The principle exporters of wheat are Canada, Australia, Argentina and United States. The production of wheat in Canada has increased greatly in recent years. Wheat production in India has had a downward trend since the War, but production in most other countries has been on the increase. Much United States wheat is sold for export and the general level of wheat prices in the United States is determined to an appreciable extent by the production in the chief exporting countries.

2. Wheat Production - World and United States and
U. S. Adjusted Farm Price 1895-1928.

The rather rapid increase in world wheat production was checked by the War, the highest production on record being in 1915. Since the War the general trend of production has been upward, with considerable increases in 1927 and 1928. Production in the United States has increased considerably the last three years. The price of wheat in the United States is determined to a considerable extent by the world production since the United States exports large quantities of certain classes of wheat.

3. Farm Prices of Wheat and Index of retail Prices
of Commodities Farmers Buy. 1910-1928.

The general level of wheat prices, except for the year 1925, has been lower than the level of prices of commodities farmers buy on the basis of pre-war relationships. The price rose rather sharply in the spring of 1928, but went steadily downward during the summer until they were on the level of prices which prevailed in the years 1922 and 1923, at the end of the year. In normal years wheat prices fluctuate rather uniformly through the year, reaching the low point in the early fall, the season of heaviest marketing by farmers, and rising to a high point in the late winter. This chart would indicate that on the basis of pre-war levels the wheat farmer has been in a favorable position only during the year 1925 when a short crop was produced.

4. Prices of Wheat by Classes. 1921-1928.

In general the prices of the different classes of wheat follow the same general trend, but fluctuate above and below that trend according to the supply and demand situations in that class of wheat. The durum wheat price is influenced to a considerable extent by the production of that class in all countries, mainly in the North Africa countries of Algeria, Tunisia and Morocco. The production of red winter wheat in the United States is a principal factor determining the price fluctuations of that class at St. Louis. The hard winter and spring wheat prices are more influenced by the world situation as a considerable proportion of these classes goes into the export trade. The November 1928 prices indicate that the prices of all classes were approximately the same at that time except red winter at St. Louis which was about 30 cents per bushel higher due to the short 1928 crop of that class.

5. Hard Red Spring Wheat and Durum Wheat: Production, Exports and Minneapolis Prices. 1921-1928.

In 1924 the price of hard red spring wheat was comparatively high, with a large production but rather heavy exports. In 1926 a short crop was produced but the price declined, exports being very small. The price of this class of wheat has tended downward since 1925, with the lowest price prevailing in 1928. The production of durum wheat in Morocco, Algeria and Tunis has a definite influence on the price of durum wheat in the United States. In some years nearly one-half of the U. S. crop is exported and competes with this foreign production on the world market. So the total supply of durum outside the United States seems to be a main factor determining the price of durum in the United States.

6. Hard Red Winter Wheat: Production, Exports and Kansas City Price, 1921-1928.

The production of hard red winter wheat was the greatest in 1928 of any year since the War. Fluctuations in prices of this class of wheat from year to year are influenced to a considerable extent by production in the United States, but world production is an important factor considering the quantity of this class of wheat which is sold on the world market. The demand for export is regulated by wheat production in other exporting countries.

7. Soft Red Winter Wheat: Production, Exports and St. Louis Price. 1921-1928.

Production of soft red winter wheat has had a downward trend since 1923 in the United States. Exports comprise only a small proportion of the crop. Fluctuations in the price of this class of wheat seem to be rather definitely related to fluctuations in production; a small crop bringing a comparatively high price and vice versa. The price for 1928 shown on this chart is for the month of November only.

8. Wheat: Average Price at Minneapolis, Kansas City and Winnipeg, and Kansas City and Minneapolis prices over Winnipeg and imports.

The price of wheat at Minneapolis is generally above the price at Winnipeg, and the price at Kansas City is lower than Winnipeg generally during the months of June, July and August. There is usually a fairly close relationship between the prices of hard spring wheat at Minneapolis and hard winter wheat at Kansas City, as shown by this chart. In years of short crops in

the United States, prices at Minneapolis are usually higher than at Winnipeg due to the influence of the U. S. tariff on wheat. For the crop year 1928-29 there is practically no difference between prices at Minneapolis and Winnipeg, since the large crop of 1928 in the United States put us on an export basis for hard spring wheat. The increase in the tariff in May, 1924 from 30 to 42 cents per bushel decreased greatly the imports for consumption coming into the United States.

FLAX

1. Flax in the United States: Price, Production, Imports, Yield and Acreage. 1902-1928.

The acreage of flax in the United States increased from a little over one million acres in 1922 to about $3\frac{1}{2}$ million acres in 1924, but since that time it has been gradually decreasing. The acreage of flax was comparatively low in the U. S. from 1914 to 1922. Previous to the war the acreage was about the same as in the last 2 years. Production of flax fluctuates to a considerable extent due both to fluctuating acreages and yields. United States in some years imports as much flaxseed as she produces, mainly from Argentina and Canada. The price of flaxseed has averaged a little more than \$2.00 per bushel since 1922, a level relatively higher than before the war. This, to a considerable extent is due to the tariff prevailing on flaxseed in the United States since 1922.

2. Flaxseed: Total Production in Argentina, Canada and United States, and U. S. adjusted Farm Price. 1920-1928.

The production of flaxseed in the three countries of Argentina, Canada and United States determines to a considerable extent the price level which will prevail in the United States. Argentina generally produces from 3 to 4 times as much flaxseed as the United States, and is the principle exporting country. United States generally imports nearly half of her consumption. The price level of flaxseed since 1922 has gone through rather narrow fluctuations in spite of the increased production in the three countries.

3. Relation of Flax Production in Argentina, U. S. and Canada to Average Minn. No. 1 Flax Price, September - November Adjusted - 1910 - 16 and 1918 - 26.

The price of flax in the United States is determined to a great extent by the production of flax in the United States, Canada, and Argentina. A total production in the three countries of about 76 million bushels in 1925 gave an adjusted price of near \$1.50 per bushel, while in 1926 a total production of 100 million bushels gave an adjusted price of about \$1.30 per bushel. In some years Argentina exports to Europe and United States practically all their flax crop, which in some years is three times the size of the crop of United States.

RYE

1. Rye: Acreage, Production, Yield and Farm Price - United States. 1866-1928.

The acreage and production of rye during the war reached high levels mainly due to the high prices prevailing. Since 1922 the acreage and production has tended downward, the general level of prices being very little above the level that prevailed before the war. Total production of rye did not increase as greatly as the acreage during the war since the yields were somewhat lower. At present prices, rye is evidently not a profitable grain crop in many areas, especially where the farmer has the alternative of raising wheat or other small grains.

BARLEY

1. Barley: Acreage, Production, Yield and Farm Price. United States 1866-1928.

The acreage and production of barley in the United States has increased steadily since 1866, and has increased greatly in the years 1927 and 1928. In 1928 the production of barley was more than 100 per cent greater than production in 1921, and by far the greatest production on record. This was due to the increase of about 30 per cent in acreage and the relatively high yield of over 28 bushels per acre. Under this record production the price decreased appreciably. A shortage of feed grains in Europe in the year 1928 led to unusually heavy exports of barley, and in many areas in the United States barley is becoming of more importance in the feeding of livestock.

2. World and United States Barley Supply and U. S. Barley Price. 1920-1928.

A rather definite relation exists between the total supply of corn and barley and the price of barley in the United States. Barley is increasing in use as a feed crop and is used in many areas as a substitute for corn in livestock feeding. Under normal conditions a large corn and barley supply gives a relatively low barley price and vice versa. In 1927 however, the shortage of feed grains in Europe gave rise to unusual exports of barley. These exports, which have been increasing steadily since the war, maintained a price which perhaps was higher than normally would have prevailed. Barley production in the United States and the world has been increasing steadily since 1920. In the states of Minnesota, North and South Dakota, Wisconsin and the irrigated western areas barley has had steady increases in acreage.

COTTON

1. Cotton: Acreage, yield, production and price. 1869-1928.

The production of cotton in the United States increased rather uniformly from 1869 to 1914. From 1914 to 1923 cotton went through a period of relatively low production due to low yields and decreased acreage caused by low prices. The last five years has seen generally heavy increases in acreage, that of 1926 being the highest on record with the highest yield

since 1914. Since the serious advent of the boll-weevil in 1915 the general level of yields has been considerably lowered. This has been emphasized also by the heavy increase in cotton acreage west of the Mississippi river, in many areas where comparatively high yields are not common; and also by the decreased acreage east of the river in areas where high yields were common before boll-weevil came.

2. Cotton Production of United States, Egypt and India.
1891-1928.

United States is by far the greatest producer of cotton, with India and Egypt the only other countries exporting any large quantities. Production in India is on the increase, but as yet is of only minor importance. Production in the United States was materially affected during the war by boll-weevil infestation, and by decreased acreage and boll-weevil during 1921-1923. Production in 1926 was the highest on record, with over 18 million bales.

3. Farm Prices of Cotton and Index of retail prices
of Commodities farmers buy. 1910-1928.

This chart indicates that the price of cotton fluctuates rather violently through any period of years. The greatest single factor determining the level of cotton prices is the size of the crop produced. Fluctuations in size of crop is caused by rather wide variations in yields and acreage through a period of years. The general level of prices of cotton during 1928 was about the same as the index of retail prices of commodities farmers buy on the basis of pre-war relationships. It was much higher than this in the years 1923, 1924 and 1925.

4. Relation between Total Supply of American Cotton (U.S. Crop and
World Carryover) and Average Prices of Spot Cotton at New Orleans
1920-1928.

The size of the cotton supply, which includes production for any one year plus the carryover from the previous year, determines to a considerable extent the level of cotton prices for the season. The decreasing supplies from 1920 to 1923 were associated with rising yearly average prices while the increasing supplies from 1923 to 1926 were associated with lower average prices.

5. Cotton Taken by United States Mills. Crop years 1876-1927.

Mills located in Southern states have been taking an increasing proportion of the cotton used by U. S. mills in the past 50 years. During the year 1927 out of a total of about 6.8 million bales taken by all mills, Southern mills used about 5.2 million bales. Cotton mills in the North are becoming of less importance in the industry each year. The increase in amounts of cotton being used by all mills is altogether in Southern mills, the amounts taken by Northern mills actually decreasing since the war. Comparatively cheap power, favorable labor conditions and closeness to the source of production are some of the principle factors causing the increase of cotton mills in the South.

6. Relation Between Average Yearly Price of Cotton at New Orleans and World Carryover of American Cotton at End of Season.

The price prevailing for cotton determines to a great extent the amount of cotton which will be carried over into the next season. If the price is comparatively low, the cotton is carried over, and stored, the holders of the crop being reluctant to sell it into trade channels at the low price. In the year 1923-24, with a price of about 29.5 cents per pound, the crop was moved and only about 3 million bales was carried over to the next season. In 1926 with a price of less than 15¢ per pound, the carryover was about $7\frac{3}{4}$ million bales.

7. Prices of spot Cotton at New Orleans and index of Cotton mill consumption.

Domestic mill consumption is influenced by general business activity and the price of cotton. When the rate of consumption is adjusted for changes in the production of manufactures, it is observed that low prices for cotton tend to be followed by high rates of consumption and that high prices for cotton cause subsequent decreases in consumption.

TOBACCO

1. Production and Consumption of Burley Tobacco. 1913-1928.

Burley tobacco has met with increasing demand for a considerable number of years due to its increasing use in cigarette manufacture. Until 1926 production increased more rapidly than consumption, resulting in the piling up of large stocks. As a natural consequence the large crop of that year sold at greatly reduced prices and production dropped to a low level in 1927. Stocks have now been diminished and will be further reduced before the 1929 crop can be marketed. Prices are again at a high level.

2. Burley Tobacco ⁴ Production, Carryover and Adjusted Price. 1913-1928.

In general the supply of burley tobacco, which includes the production for any one year plus the carryover from previous years, determines to a considerable extent the price of that tobacco which will prevail for the season. The demand from tobacco manufacturing industries for burley tobacco is the other main factor which determines price. Burley tobacco is next in importance to the bright tobaccos in the manufacture of cigarettes, and the consumption of cigarettes has been increasing rapidly in recent years, and burley has been in good demand. Since 1920 the amount of carryover has been greater than the crop each year. The carryover for 1928 was appreciably less than that for 1927. The relatively large production and carryover in 1926 gave the largest supply on record and the price was low accordingly. Low production and a lessened carryover in 1927 gave a good price for that year. The total supply in 1928 was below that of the past five years and the quality is unusually good. As a result the price to growers will approach clearly the record price of 32.6 cents obtained in 1918.

3. Acreage and Production of Flue-Cured Tobacco 1909-1928.

The trend in both production and acreage of flue-cured tobacco has been steadily upward for the last 20 years with greater increases than usual during the war period. The yield per acre of flue-cured tobacco varies considerably from year to year, giving rather marked fluctuations in total production. The price of flue-cured tobacco, not shown on this chart, has been relatively favorable compared to some other types and has lead to rather uniform expansion in acreage. The acreage in 1928 was an increase over 1927 of about 17 per cent and total production about 1 per cent greater than that of the previous year.

4. Production and Price of Flue-Cured Tobacco 1909-1928.

The production of flue-cured tobacco has been steadily increasing since the War, the crops of 1927 and 1928 being the largest on record. The consumption of this type of tobacco has not been increasing as fast as production and storage stocks have been increasing very rapidly. Domestic and foreign demand for this type of tobacco, however, has been increasing in recent years and until 1928 has been effective in maintaining a price which leads tobacco growers to increase production. The flue-cured type of tobacco in 1928 comprised about 53 per cent of the total tobacco produced in the United States.

5. Exports of Bright Flue Cured Tobacco 1923-1927.

The export of bright flue-cured tobacco has been increasing steadily since 1923, amounting to over 300 million pounds in 1927. In 1927 these exports amounted to over 40 per cent of the total crop. The United Kingdom and China are the main importing countries, the bright flue-cured type making up a large proportion of the total leaf tobacco exports to the United Kingdom. About 60 per cent of all the tobacco of all types exported in 1927 was the bright flue-cured type. Market is found in nearly all countries in northern Europe, with Australia importing a considerable amount. The exports to "all other" countries is increasing steadily, indicating a widening market for this type of tobacco. The exports during the first 11 months of 1928 exceeded 374 million pounds, with Chinese takings exceeding all past records for that country.

6. Acreage and Production of Dark-Fired Tobacco. 1910-1928.

Both the acreage and production of dark-fired tobacco have had downward trends since 1923, although they increased in 1928 over 1927. This chart indicates that fluctuations in production are caused mainly by fluctuations in acreage, the yields per acre being rather constant. The decrease in acreage of this type of tobacco has been caused mainly by greatly curtailed foreign demand. The consumption of tobacco products generally made from the dark types of tobacco has not increased as has the consumption of products made from the bright tobaccos, and the demand for the dark types has not been very active.

7. Reports of Virginia Dark Fire-Cured Tobacco 1923-1927.

The general trend in exports of Virginia dark fire-cured tobacco has been downward since 1923, with some increase however in 1927 over 1926. This increase in 1927 was mainly in exports to the less important countries, classes as "all other". The principle reason for the sharp decline in exports of Virginia dark fire-cured has been the great decrease in exports to the United Kingdom, which decreased from over 24 million pounds in 1923 to less than 2 million pounds in 1927. The decrease in the export market for this type of tobacco has had a depressing affect on the price, at times more than 50 per cent of the total production of this type being exported.

8. Leaf Tobacco Used by Domestic Manufacturers. 1897-1927.

The total amount of tobacco used by domestic manufacturers has been steadily increasing during the last 5 years. The amounts used for chewing tobacco and snuff is slowly decreasing, the amount for cigars remains about the same, but the amount used for cigarettes is rapidly increasing. The domestic demand for the types of tobacco from which these types of products are made is therefore indicated on this chart. Bright flue-cured tobacco and large quantities of burley, from which cigarettes are made, enjoy an increasing demand and have had relatively good prices. The dark tobaccos and some cigar types have not fared so well. Prices have been maintained only where production has been adjusted to conform with stationary or decreasing demand.

9. Leaf Tobacco Held by Manufacturers and Dealers 1913-1928.

The stocks of Kentucky an Tennessee dark fired-cured and the Virginia dark tobaccos have remained rather constant for years, the Virginia dark decreasing some in 1922-1924, but increasing since that time. The stocks of bright tobaccos, however, have been increasing rapidly in recent years. Bright tobaccos much of which goes into cigarette manufacturing, has enjoyed a good demand due to the increased world consumption of cigarettes. The price of bright tobacco has been high enough to induce growers to produce increasing quantities, notwithstanding that the stocks are rapidly increasing. The prices which have prevailed for the dark types have not as a rule been high enough to stimulate production and therefore increase stocks, the demand for this type^{has} not been very active in recent years.

10. United States Exports of Leaf Tobacco 1914-1927.

4 Much leaf tobacco is exported from the United States, some types depending quite largely on the export demand. Generally about 40 per cent of the total crop of tobacco in United States is exported, going to all parts of the world. The United Kingdom is the largest single market, from 35 to 40 per cent of the exports going there. China is the next largest market, with varying quantities going to most every country in Europe. Since the war exports have been at a higher level than before the war, and rather uniform in total quantities. There has been a fairly consistent change in the character of exports, with more and more flue-cured tobacco and with less fire-cured and dark air-cured.

11. Consumption of Cigarettes, and Population 1900-1927.

The consumption of cigarettes in the United States has been increasing very rapidly, especially since the war. This increase has been much more rapid than the increase in population. The types of tobacco from which cigarettes are made, such as the flue-cured and burley, have had therefore an increasing demand and a resultant favorable price in recent years. The consumption of chewing and smoking tobacco, and even cigars, has not had this increase and this has been reflected in a stationary or downward tendency in demand for the types from which those products are made.

POTATOES

1. Potatoes: Acreage, yield per Acre and Production. 1869-1928.

Both the acreage and production of potatoes in the United States has been increasing steadily since 1869. Since 1890 there was a rather definite upward trend in production per capita until the years starting with 1922, when it had a definite turn downward, with the yield per acre remaining on a high level. This means that the acreage has not kept pace with the previous acreage per capita. The 1928 crop, which is not shown on this chart was very large, due to a large acreage and unusually high yields. The resulting price in 1928 was therefore unprofitable to potato growers in all sections.

2. Factors Affecting Potato Acreage in the United States.

The total acreage of potatoes planted from year to year in the United States is dependent mainly upon the price prevailing the previous year and the cost of seed potatoes. The acreages planted in widely separated areas in the country may fluctuate differently also, due to the different conditions prevailing in these separate areas. The main factor determining the general level of potato prices for any one year is the number of potatoes produced. Large crops bring low prices, and vice versa. Following years of small crops, and resulting high prices, the acreage of potatoes will increase, the extent of the increase depending to a considerable extent upon the price of seed potatoes. The cost of seed potatoes may reach \$75.00 per acre and growers are unable to finance a large increase in acreage. In 1926 ~~this condition prevailed~~, and the favorable prices for the 1926 and 1927 crops caused a heavy increase in acreage each succeeding year. In 1928 the weather was favorable for growing, the yield was therefore high, and with the large acreage a large crop resulted, giving the low prices which prevailed for the 1928 crop.

3. Farm Prices of Potatoes and Index of Retail Prices of Commodities Farmers Buy. 1910-1928.

The price of potatoes fluctuates violently from one season to another, and from month to month also. The price is generally highest in early spring and lowest in the late fall, the general level of prices however being determined mainly by the size of the total potato crop. Potato prices were on a comparatively high level during the years 1925, 1926 and 1927, but at the close of 1928 had declined to the lowest point since the War. For the three years 1925-27, the purchasing power of potatoes was high, but for 1928 the level will be lower than the level of retail prices of commodities farmers buy.

4. Factors Affecting the Yearly Farm price of Potatoes.
1908-1914 and 1921-1927.

The price of potatoes is directly affected by the supply of potatoes for any year. The demand for potatoes since the War has been on a higher level than before the War, due mainly to the increase in population as indicated by the two curves on the upper portion of chart. The price of potatoes which will prevail for any sized crop is shown by these curves, and the greater the production the lower the price. For 1927 a crop of about 410 million bushels brought a farm price of about \$1.10 per bushel, but in 1925 a crop of about 325 million bushels brought about \$1.80 per bushel.

In general, prices of potatoes fluctuate as do general food prices. When general food prices rise, the price of potatoes rises proportionately. The acreage of potatoes should be regulated so that the total production will be small enough to command a profitable price to the growers.

5. All Potatoes: Production and Farm Price 1921-1928.

The two principle factors governing the price of potatoes are the size of the potato crop and the general level of food prices, the former being of most importance. A large crop of potatoes brings low prices per bushel, and vice versa. The production of potatoes in the United States has been increasing since 1925, and the price has therefore been decreasing. In 1928 a very large crop was produced, caused both by increased acreage and yields, and the prices received by growers were very low, averaging only 54 cents on December 1. In all districts, both early and late, low prices prevailed throughout the season so far. Producers should well consider the fact that high production nearly always means an unprofitable price.

6. Early and Second Early Potatoes: Production and Prices to Growers.
1921-1928.

In both the early and second early crops of potatoes, the price received per bushel is determined largely by the number of bushels produced and the price of old potatoes. In the year 1928, which had the highest production of early and second early potatoes on record, the prices received by growers were very unprofitable in all areas. The price for early potatoes in 1928 was near 60 cents per bushel while the price received in 1927 with a smaller crop was about \$1.50 per bushel. The second early crop, which comes on the market later and at a lower level of prices generally, only returned about 38 cents per bushel to the grower, a decidedly unprofitable situation. Growers should consider the intentions to plant reports of the Bureau of Agricultural Economics in planning acreages to plant in potatoes.

7. Weekly Summary of Carload Shipments of Potatoes
by Named Areas. Three-year Average-1923-1925.

The early potato shipping regions are shown in this chart with the general sequence of their coming on the market. Florida starts shipment in March, with their May shipments meeting competition from Texas, Louisiana, Alabama, South Carolina and Georgia. The eastern shore of Virginia is the largest producer of early potatoes, the bulk of the crop being shipped during June and July. Prices always decline as the season advances. The prices obtained by growers of early potatoes in any area is determined by the production in all the early areas, and also by the carryover of old potatoes from the last year's crop.

8. Weekly Summary of Carload Shipments of Potatoes by States.

Three-Season Average, 1922-1924.

The principle states shipping late or main-crop potatoes are shown on this chart. Minnesota and North Dakota combined and Maine are the largest shippers, many cars moving to market each week from August to May from these states. After November the shipments to market are from storage, the amount being shipped by farmers themselves depending upon the prices prevailing. In seasons of low prices the percentage of the crop held by farmers is much greater than in seasons of high prices. Any contemplated increase in potato acreage in any state should consider the competition which those potatoes will meet when marketed.

PEACHES

1. Peaches: Yearly Production and Number of Trees

By Census Periods 1900-1928.

With only two exceptions in the last 25 years, small crops of peaches are followed by years of large crops. Since 1920 the trend of peach production in the United States has been upward, but since 1900 production has tended to fluctuate in cycles. Peach production in 1928 was next to 1926, the largest crop on record. Perhaps the production cycle has reached its peak and will tend downward for a few years. The total number of trees and the number in the 7 southern peach states increased rapidly between 1900 and 1910 and fell off sharply between 1910 and 1920. The number in 1925 was about the same as in 1920. No definite relation seems to exist between production and total number of trees, production in recent years being the highest with a decreased number of trees. This is due mainly to the concentration of trees in commercial areas and the improvement in transportation and marketing facilities in caring for the crop.

2. Relative Numbers of Young and Old Peach Trees in

Various States. 1925.

In general, the principal early peach producing states had comparatively young trees in 1925. Georgia, the principal early producing state had about 90 percent of the trees less than 9 years old with 60 percent less than 6 years old. California, the state of greatest production, had comparatively old trees in 1925, only about 42 per cent being under 6 years old. The crop of California, however, is used mainly in canning and drying and is not an important factor in the fresh peach market. New York, New Jersey, Pennsylvania and Ohio, the principal late producing states, have comparatively old trees in peach orchards.

3. Peach Production and Prices to Producers 1910-1928.

The size of the peach crop for any year is one of the principle factors determining the level of peach prices for that year. A large crop results in a low price and a small crop generally results in a high price.

The production of competing fruits has some effect upon the price of peaches. With only a few exceptions, a large crop of peaches in any one year is followed by a smaller crop the next year. The production of peaches in 1928 was about 69 million bushels, which gave to the producers a price of about 95 cents per bushel.

4. Peach Production in Georgia and the Carolinas
and Prices to Georgia Producers. 1910-1928.

The size of the peach crop in Georgia and the Carolinas determines the price which Georgia producers receive for their peaches. The size of the crop in Georgia is generally greater than the crop of all other early peach states combined, and generally the Georgia crop determines the level of prices in other early commercial areas. In 1927 a comparatively short crop was produced in Georgia and the Carolinas and the price per bushel was about \$1.35 to Georgia producers. In 1928 a large crop was produced and only sold for about 80 cents per bushel.

5. Relation of Size of Peach crop in Georgia and the
Carolinas to Peach Prices to Georgia Farmers.

The price per bushel of peaches received by Georgia farmers is determined to a great extent by the number of bushels produced. When only a small crop is produced the price is comparatively high, and vice versa. In the year 1926, with a crop of about 12½ million bushels, the price received was about one dollar per bushel. In 1923, with a crop of only 6 million bushels, the price was about \$1.55 per bushel. Never does a high price prevail for a large crop, and the amount of the crop determines the level of prices which will prevail.

6. Carload Shipments of Southern Peaches. 1920-1928.

The general trend of carload shipments of southern peaches has been upward in all areas. Georgia is by far the greatest producing state, shipping more than all other states combined. Shipments from North Carolina, South Carolina and Alabama are increasing, but are as yet a small percentage of the Georgia shipments. Shipments from all Southern peach states except Georgia was greater in 1928 than in any previous year, but Georgia shipments in 1928 were less than in 1926, but more than in 1927. Undoubtedly the production of peaches in Georgia determines the price in all other areas which market at the same time of year. In contemplating increased plantings, the dominance of Georgia in the market should be considered.

7. Weekly Carload Shipments of Peaches by States, 1926.

The production of peaches in Georgia is greater than all other Southern States combined. The volume of Georgia shipments control the general level of peach prices each year. Generally shipments of early varieties start the first of June, with the Elbertas coming on the market about the middle of July, depending somewhat, however, on the season. Any expansion of the peach acreage in States outside of Georgia should take into consideration the dominance of the Georgia crop, which determines the general level of prices which prevails in all early areas.

8. Relation between Daily Supply of Peaches at New York
and Returns for Elberta Peaches by Sizes, 1924.

A rather constant difference in prices prevails between peaches of large and small sizes on the New York market, regardless of the supply coming on the market. The supply coming on the market determines the general level of prices prevailing, in 1924 a supply of 120 carloads in one day giving an average net return of about 30 cents per crate for the small sizes, but a supply of 60 carloads bringing an average net return of about \$1.20 per crate. In 1924 a total supply of over 120 carloads in one day gave a price for the small sizes which was not profitable. In general, in periods of low receipts all sizes commanded a price which made profits possible, while the large sizes were the only sizes profitable in periods of high receipts.

9. Net Returns to Grower for Georgia Elbertas Consigned to
New York. 1926.

The costs of packing and marketing poor quality peaches is approximately the same as the costs for the best quality. Packing and transportation costs are the same, with a slightly less cost of commission. In 1926 the best quality averaged \$1.82 per crate, jobbing price, while the poor quality brought only \$1.30 per crate. As the commission charge was only 5 cents less for poor quality, all other charges being the same, the net return to the growers for the best quality was 51 cents per crate, while that for poor quality was 4 cents per crate. Every effort should be made to market peaches of the best quality if net returns are to be profitable.

APPLES

1. Apple Production, Exports and Adjusted Farm Price. 1900-1928.

The principal factor regulating the price level of apples is the size of the crop produced. A small crop brings a high price per bushel and vice versa. Production of apples fluctuates rather violently from one season to the next. The crop of 1926 was one of the largest on record, while that of 1927 was one of the smallest. The production of apples seems to go through a rather well defined cycles as indicated on the chart, but with wide fluctuations from this trend in certain years. The exports of apples, as shown by the black portion of the bar, is a very small proportion of the total crop of the United States.

2. Apple Trees: Number in Each Geographic Division.
1910, 1920 and 1925.

The Middle-Atlantic, South Atlantic and East-North-Central geographic divisions of the United States contain the greater percentages of the total apple trees. In the East-North-Central and West-North-Central divisions a very great decrease occurred in the numbers of trees between the years 1910 and 1920, but with only a moderate decrease between 1920 and 1925. The number of trees in the Pacific and Mountain divisions is comparatively small, but the high yields per tree gives a production much greater than the number of trees would indicate. Plantings in the Pacific and Mountain states

have been decreasing greatly, only a small percentage of the total trees being of non-bearing age in 1925.

Most of the heavy decreases in numbers of trees between 1910 and 1920 came from the abandonment of orchards in the middle west. This decrease had very little effect upon the total production of apples, which has been tending more each year to be concentrated in commercial producing areas.

3. Apples: Commercial Production, by Regions, 1919-1928.

In the years 1927 and 1928 the commercial production of the western boxed-apple region and the barreled-apple region was about the same. Generally production in the barreled-apple region is considerably higher than in the boxed-apple region. In 1921 a crop failure occurred in the barreled region, but production in the western boxed region was greater than normal. The near-record crop of 1926 was mainly due to high production in the barreled region, the western boxed region being about normal. The numbers of trees in these two regions is not proportional to the production, the western boxed-apple region having a much smaller number of trees, but having a high production per tree.

4. Total Production of Apples by Geographic Divisions, Five Year Averages - 1909-13, 1924-27.

There has been a definite upward trend in apple production in the Pacific and mountain divisions of the United States. A downward trend is evident in all other geographic divisions except the South Atlantic. Very great decreases occurred in the West-North Central division. In the middle Atlantic and East-North Central divisions, where large quantities of apples are produced, less violent decreases occurred. The decreases in production in the divisions in the middle-west were caused mainly by the abandonment of farm orchards. The production of apples is becoming every year more confined to the commercial apple producing regions. The total production of apples in the United States shows ~~no~~ downward trend during the period shown on this chart.

5. Apple Price - Supply Curve; Apple Value-Supply Curve. 1910-1927.

The upper curve on this chart illustrates the fact that the supply or production of apples for any one year determines to a great extent the price which growers receive per bushel. A large production gives a comparatively low price and vice versa. In 1926, with a very large crop, the price per bushel was less than 90 cents, while in 1927, a very short crop, the price was about \$1.40 per bushel. Any point on this curve read from the

bottom or production scale will indicate the approximate price per bushel on the left hand price scale. The lower curve illustrates the fact that as the total production of apples increases the total value of the crop increases, but not in direct proportion. A crop of near 130 million bushels will have a total value of near 195 million dollars, but a crop of 260 million bushels will have a value of about 230 million dollars, or only about 35 million dollars more in value for the 130 million bushels increase in supply. All prices and values here given are on the bases of 1927 price level.

6. Apple Trees in Commercial Orchards: Percent in Each Age Group. Selected States, January 1, 1928.

The apple trees in commercial orchards of New York will average older than trees in the other states here shown. Between 25 and 30 per cent of trees in New York are over 19 years of age, with about 13 per cent being over 49 years of age. The trees in Michigan commercial orchards average next to those of New York in age, but the proportion of the trees in the remaining states here shown which are over 19 years of age, is small. Since 1920 the heaviest plantings have been in Arkansas, but only a comparatively small percentage of trees in that state were planted between 1910 and 1919. Over 60 percent of the trees in the state of Washington was planted between 1910 and 1919, but plantings since 1919 have been comparatively light. About the same situation prevails in Delaware as in the State of Washington.

7. Apple Trees; Number in New York Commercial Orchards.

Selected Varieties by Age Groups. Jan. 1, 1928.

Baldwin and Rhode Island greening varieties have been the most common produced in New York State in the last 50 years. Northern Spy, Wealthy and Ben Davis trees were planted within the last 30 years and uniform planting did not take place. A rather large percentage of Baldwin apple trees are over 29 years old, nearly 600,000 being 49 years or older. The McIntosh variety has become of great importance in recent years, and the number of trees less than 9 years old of this variety is the greatest of any variety grown. About 425,000 trees of the McIntosh variety were planted from 9 to 18 years ago, but very few plantings took place before that time. The production of McIntosh apples in New York State will increase as these young trees come of full bearing age.

8. Apple Prices by Varieties, 1922 to date.

Profits in apple production depend to a considerable extent upon the production of varieties which the market will buy at a profitable price. In general the total supply of apples of all varieties regulates within limits the general level of apple prices, but consumers demand certain varieties in preference to others and pay a higher price for them. As this chart shows, whatever the level of prices, Rhode Island Greenings generally sell for higher prices than Baldwin apples on eastern markets. For western boxed apples, the Delicious variety always sells for a higher price than either Winesap or Rome Beauty, with Winesap selling higher than Rome Beauty. In certain seasons the Delicious sells for two times the price of Rome Beauty, but the costs of growing and marketing are in most cases somewhat the same. Excellent profits could be made on Delicious and money lost on Rome Beauty due to this great difference in price which always prevails.

SUGAR

1. Sugar Production in Continental United States. 1823-1928.

The production of beet sugar, which began about 1880 in the United States, has increased greatly until at the present time it averages nearly one million tons a year. The production of cane sugar, which is confined exclusively to the state of Louisiana, has been going on for over 100 years.

Since 1908 the trend of production of cane sugar has been downward, due to relative unprofitability caused by lowering yields and increased labor costs. The introduction of disease-resistant varieties of sugar cane in recent years has tended to check this decline in yields. At the present time the production of cane sugar is of minor importance in the sugar supply of the United States.

2. World production of sugar and U. S. price of sugar beets 1920-1928.

The production of sugar in the United States is only a relatively small part of the total amount of sugar consumed here. Much sugar is imported from Cuba, Hawaii, Porto Rico and other countries. The price that will generally prevail in the United States for sugar will be governed largely by sugar production outside of United States, the general level of those prices being raised some by the tariff on sugar.

GENERAL

1. Index Numbers of Prices Received by Farmers
and Prices Paid by Farmers, 1910-1928.

On the basis of pre-war prices, the prices paid by farmers for commodities bought since the war have been relatively higher than the prices received for the products which they sold. Since 1921 a gradual trend upward is evident in the prices received by farmers. The year 1928 shows an increase over the year 1927, but the index of prices received was about 140 compared to about 157 for the index of prices paid for commodities bought. The prices of farm products must go higher yet before they are on a parity with the prices paid by farmers calculated on a pre-war base.

2. Indexes of Payrolls in Manufacturing Industries
and Industrial Production. Monthly 1921-1928.

The index of the amount of payrolls in Manufacturing industries in the United States, compiled by the Federal Reserve Board, indicates a slightly downward trend since 1926. The index of the volume of industrial production has shown an upward trend during that period. These two indexes indicate an increased efficiency in industrial production, due primarily to the replacement of human labor by machinery. The index of payrolls can be used as an indicator of demand in the United States for farm products in general. Since 1921, there appears to have been two complete business cycles, marked by low levels of both production and payrolls at the end of 1921, the middle of 1924 and the end of 1927. During 1928 production and payrolls were on the upward trend.

3. Supply of Farm Labor and Industrial Employment 1919-1928.

The supply of farm labor in general depends to a large extent on the amount of employment in manufacturing industries. When industrial employment is high, the men available for farm labor are low, and vice versa, hired hands on farms going to the cities and working in industries when the inducements are great enough. During the years 1927 and 1928 industrial employment has been below normal and the supply of farm labor has been greater than the demand.



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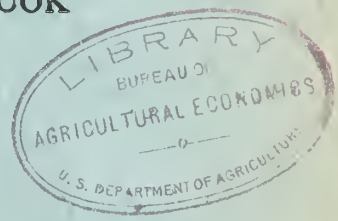
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UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF AGRICULTURAL ECONOMICS

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CHARTS RELATING TO
THE 1929 AGRICULTURAL OUTLOOK



PART II. LIVESTOCK AND PRODUCTS

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Washington, D. C.,
January, 1929.

These charts have been selected to aid extension workers in presenting the Agricultural Outlook for 1929. Copies of this collection will be furnished to extension specialists upon request.

A brief interpretation of each chart is included. This interpretation covers the principal facts brought out in each chart and can be used as a guide by workers not entirely familiar with chart reading.

Wall charts of any of the charts in this collection may be purchased for extension uses. Size 30x40 inches, heavy paper, 75 cents each; mounted on linen \$1.25 each. Address orders with check payable to Disbursing Clerk to Bureau of Agricultural Economics, United States Department of Agriculture, Washington, D. C.

Part I includes charts dealing with the principal farm crops.

CONTENTS

LIVESTOCK AND PRODUCTS

Beef Cattle

1. Number of livestock by classes. 1921-1928
2. Number of cattle on farms and receipts at important markets. 1870-1928
3. U. S. price of cattle per head and price of steers at Chicago. 1878-1928
4. Relation between price and supply of cattle at Chicago. 1890-1927
5. Receipts and prices of Western range cattle at Chicago. 1878-1927
6. Factors affecting price of good beef steers.
7. Beef steer prices sold out of first hand for slaughter at Chicago. 1922-1928
8. Retail prices of fresh beef at Chicago, monthly. 1921-1928
9. Average prices of stocker and feeder steers shipped from Chicago. 1922-1928

Hogs

1. Prices of heavy hogs at Chicago monthly. 1890-1928
2. Corn-hog ratio, 1910 to date.
3. Factors affecting the price of hogs. 1907-1928
4. Total weight of hogs slaughtered under Federal Inspection and hog prices.
5. Corn hog ratios and hog marketings. 1904-1928
6. Hog prices and slaughterings since 1840.
7. Hog marketings and hog prices. 1905-1928
8. Corn belt pig crop and hogs slaughtered. 1922-1928
9. Seasonal change in hog marketings, monthly.
10. Seasonal change in hog prices, monthly.
11. Hog prices and exports of pork and pork products. 1916-1928

Sheep, lambs and Wool

1. Cycles in sheep prices and numbers. 1885-1928
2. Trends in numbers of sheep in important countries. 1860-1928
3. Farm prices of lambs and index of retail prices of commodities farmers' buy. 1910-1928
4. Weekly average price of sheep and lambs at Chicago and monthly slaughter. 1920-1928
5. Sheep and lambs: Origin of market receipts, by months, 1925.
6. Effect of production on the price of lamb. 1907-1928
7. Wool production, net imports and apparent consumption. 1870-1927
8. Farm prices of wool and index of retail prices of commodities farmers buy. 1910-1928.
9. Wool prices and imports. January 1921 to date.

Horses and Mules

1. Horses: Number on farms and adjusted price, 1867-1928
2. Farm prices of horses by age groups. 1894-1928
3. Farm prices of mules by age groups. 1894-1928

Dairy Cattle and Products

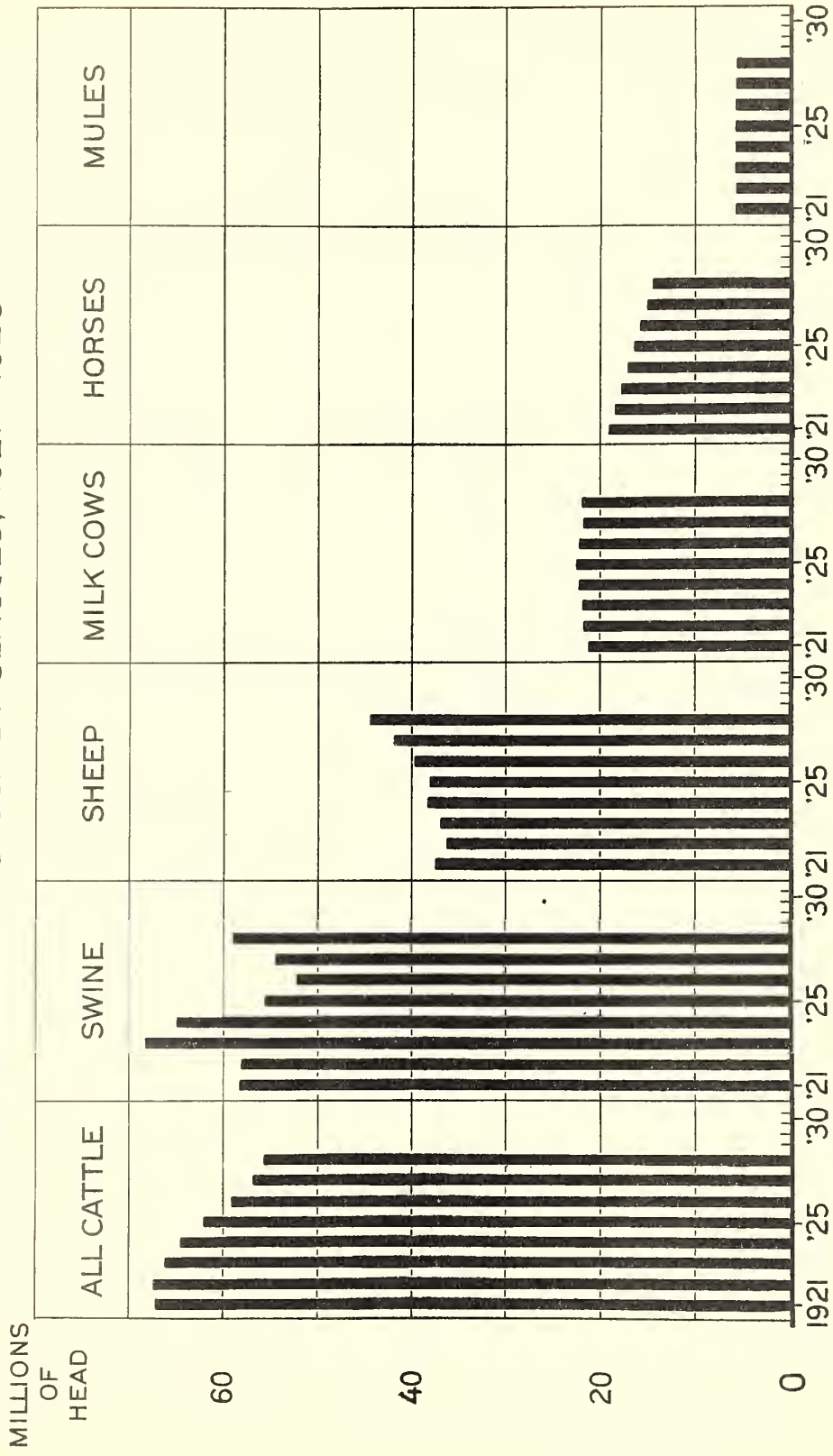
1. Cows, heifers and calves being kept for milk cows. 1920-1928.
2. Yearly production of creamery butter by regions. 1918-1928
3. Farm prices of butter and index of retail prices of commodities farmers buy. 1910-1928.
4. Average farm price of butterfat in selected states and the U. S. monthly 1925-1928
5. Creamery butter: Cold storage holdings, movement into and out of storage and New York prices monthly. 1925-1928
6. Monthly average price of butter in Great Britain and New York and imports into U. S. 1921-1928
7. Per capita consumption of dairy products. 1917 to date.

Poultry and Eggs

1. Farm price of chickens and index of retail prices of commodities farmers buy. 1910-1928
2. Farm price of eggs and index of retail prices of commodities farmers buy. 1910-1928
3. Seasonal receipts of eggs at New York by regions of origin. 1921-1928
4. Eggs: New York wholesale prices by grades monthly. 1925-1928
5. Case eggs: Cold storage holdings, net movement into and out of storage and New York prices monthly. 1925-1928.

Interpretations and explanations of charts.

NUMBER OF LIVESTOCK BY CLASSES, 1921 - 1928

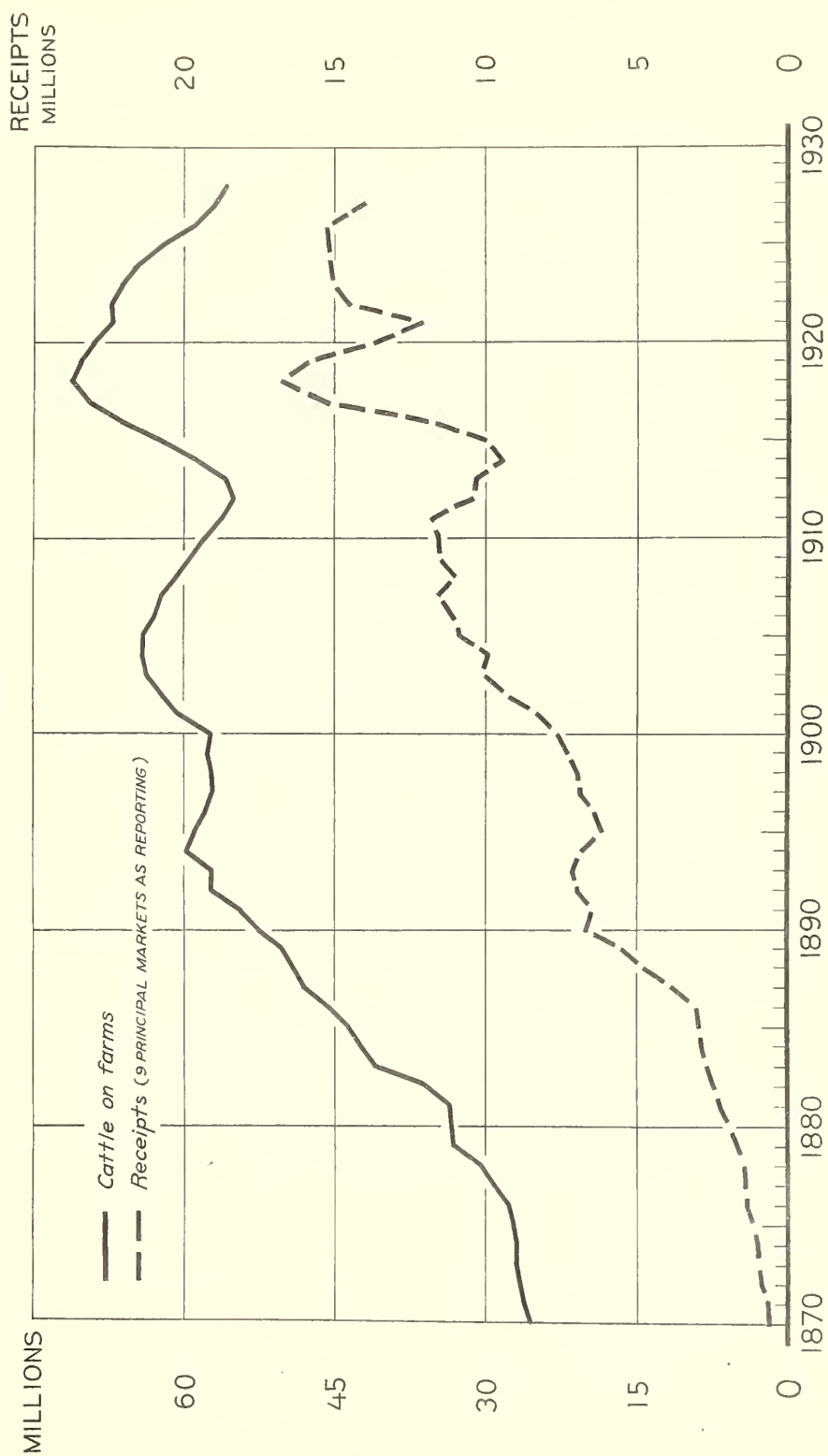


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3. 年龄：[Age]
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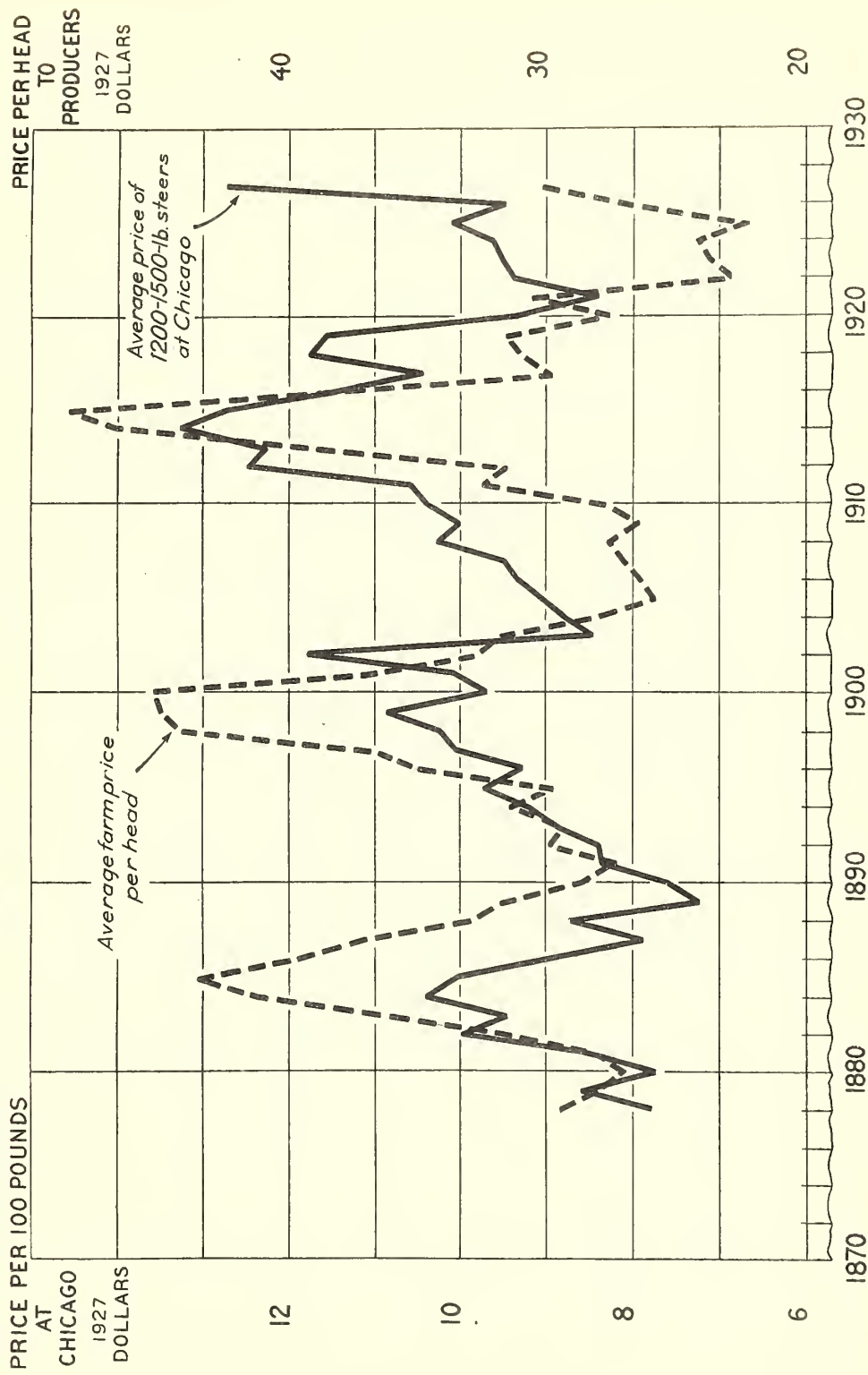
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10. 健康状况：[Health Status]
11. 兴趣爱好：[Hobbies]

12. 其他信息：[Other Information]
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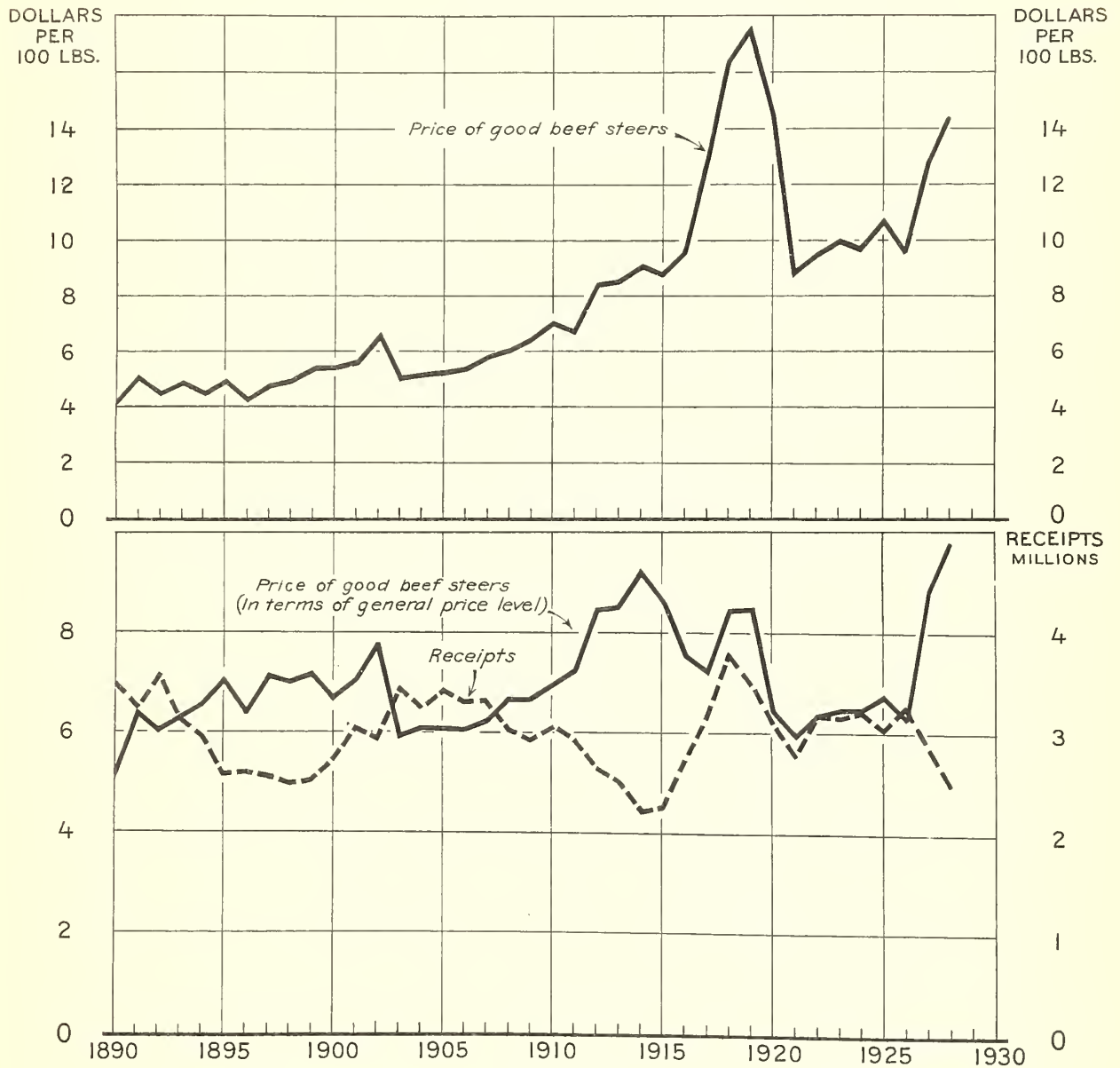
NUMBER OF CATTLE ON FARMS AND RECEIPTS AT IMPORTANT MARKETS 1870-1928



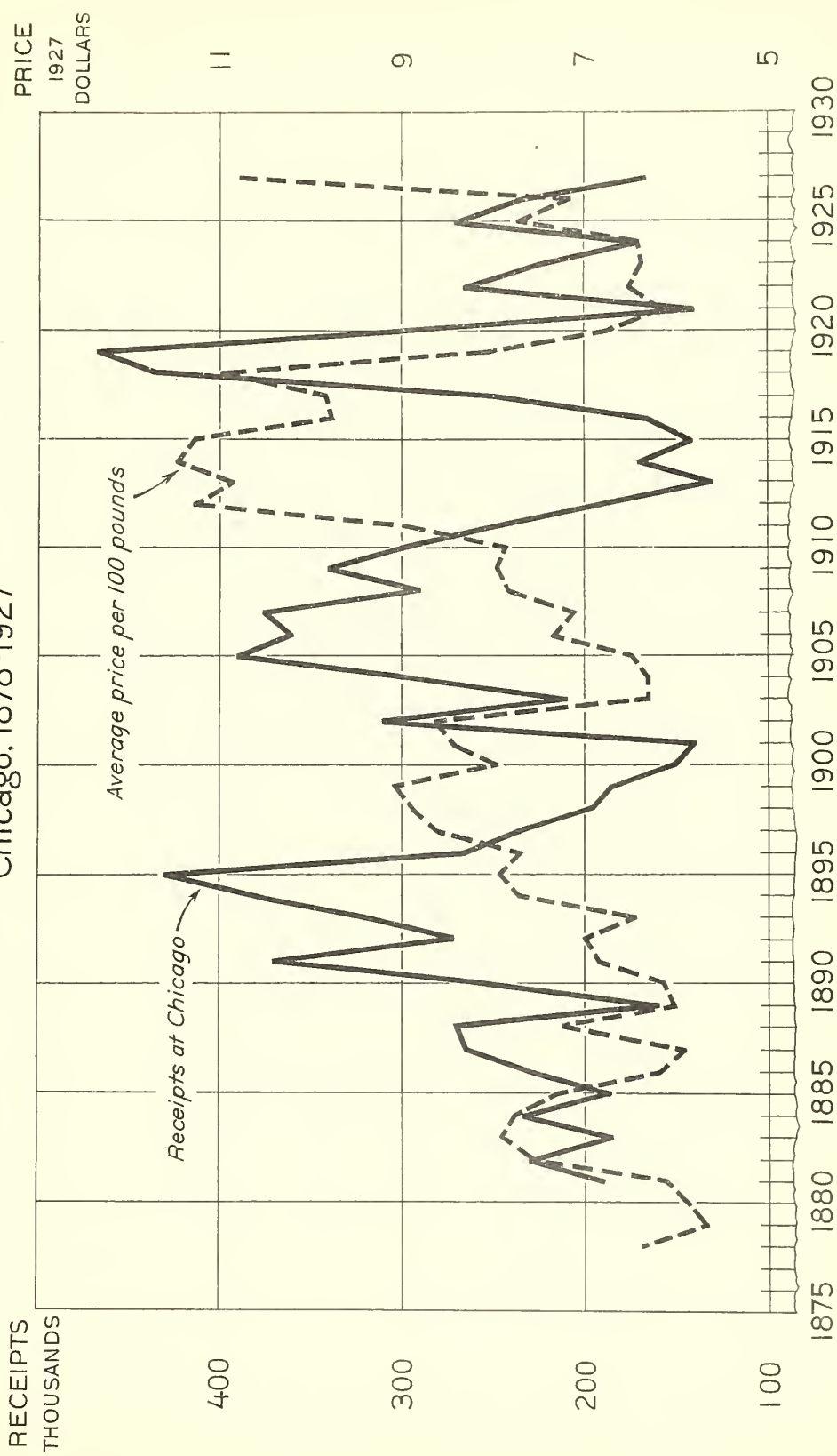
U.S. PRICE OF CATTLE AND PRICE OF STEERS AT CHICAGO



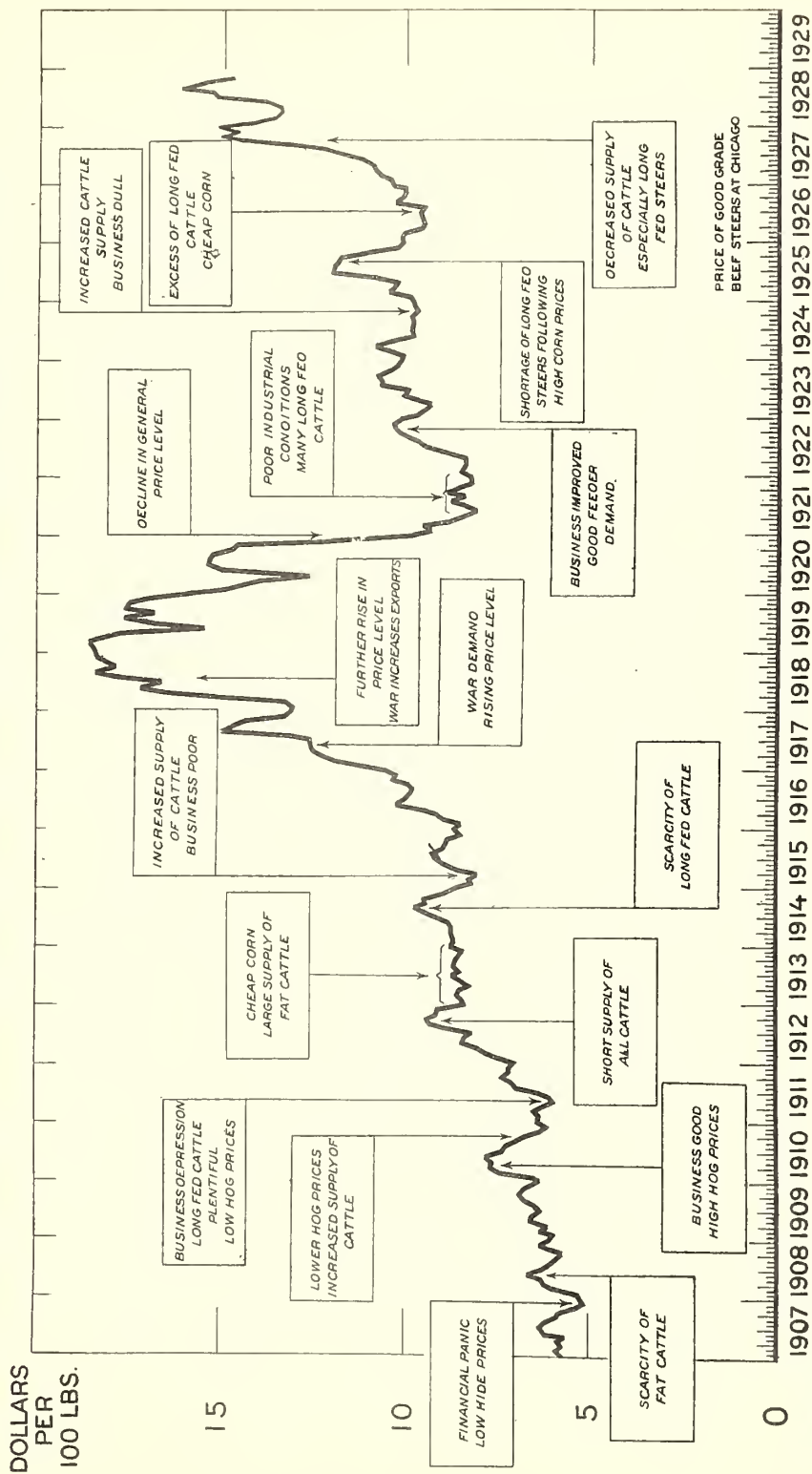
RELATION BETWEEN PRICE AND SUPPLY OF CATTLE AT CHICAGO 1890-1928



RECEIPTS AND PRICES OF WESTERN RANGE CATTLE Chicago, 1878-1927

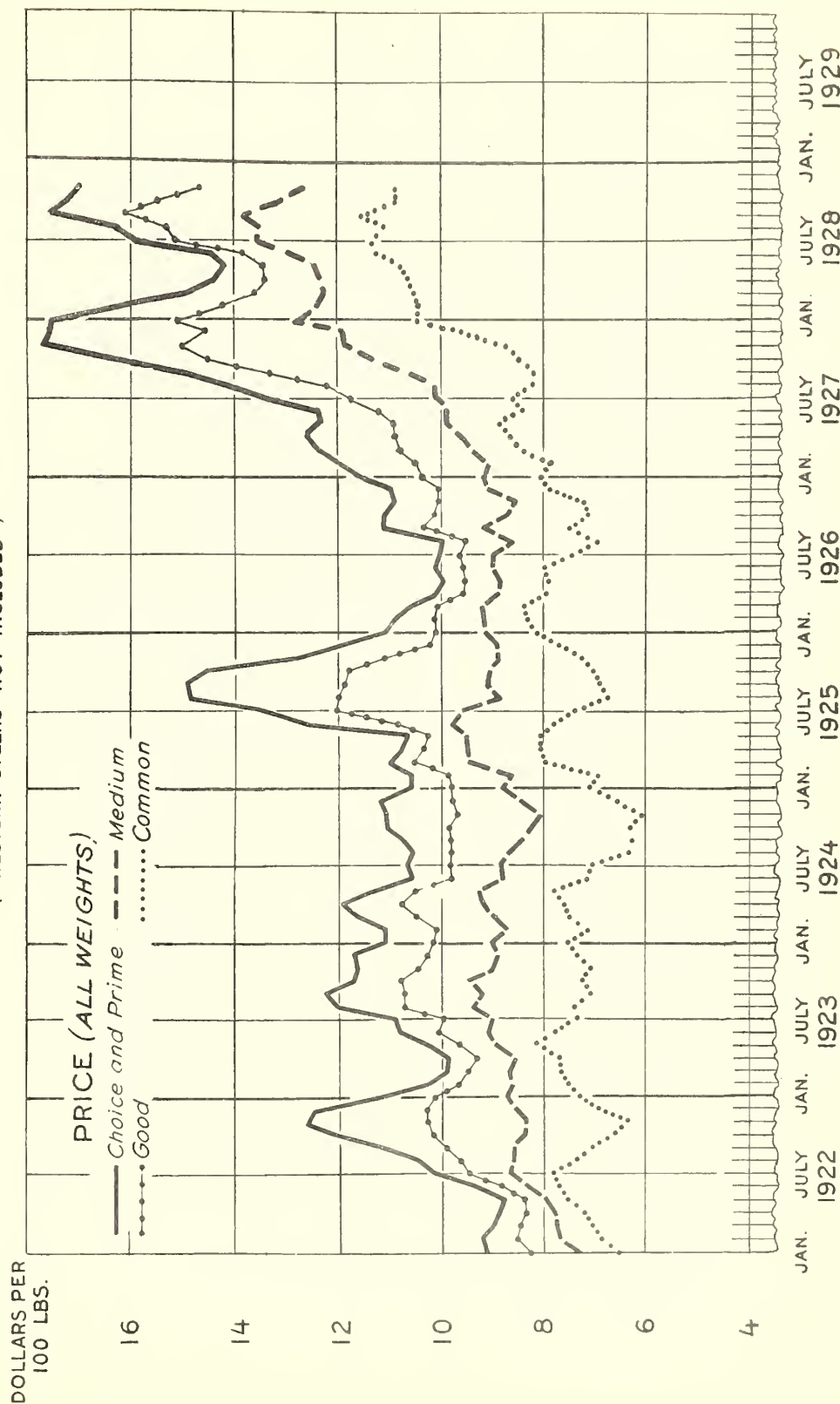


FACTORS AFFECTING THE PRICE OF "GOOD" BEEF STEERS

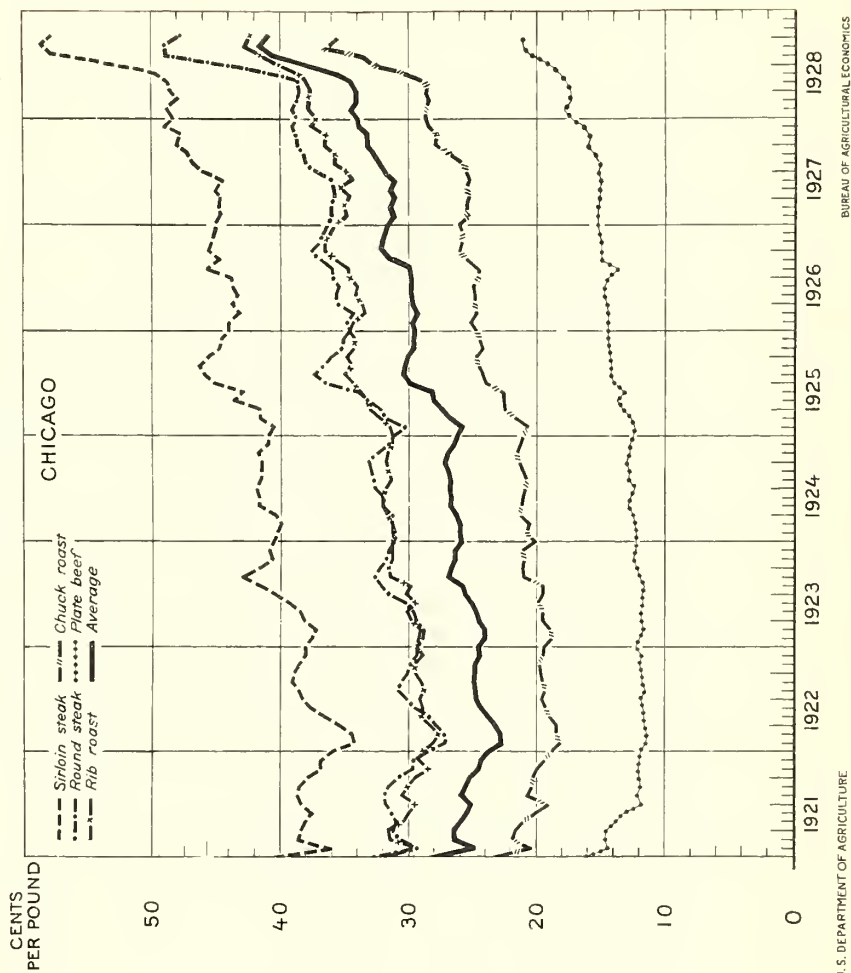


BEEF STEERS SOLD OUT OF FIRST HAND AT CHICAGO FOR SLAUGHTER

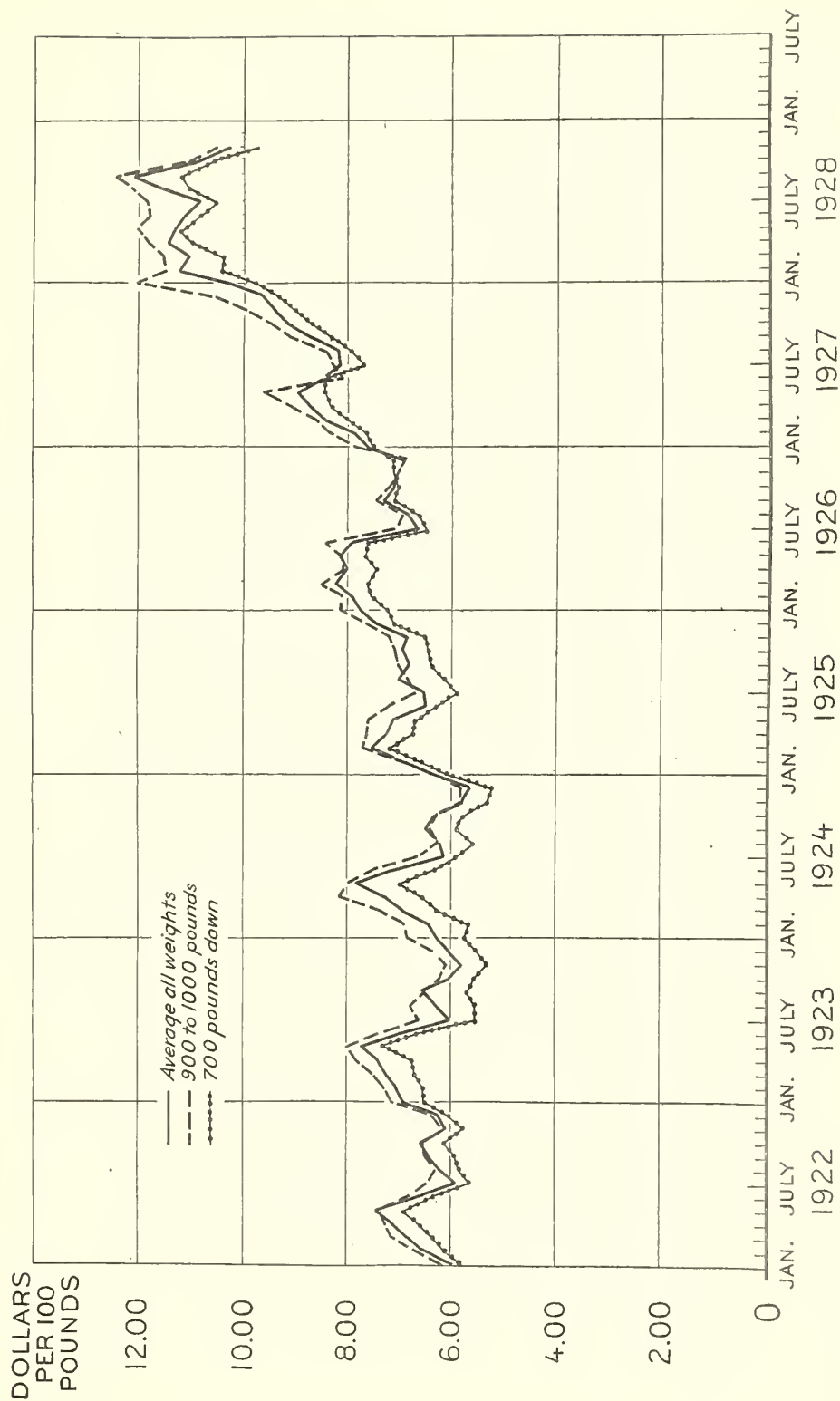
(WESTERN STEERS NOT INCLUDED)



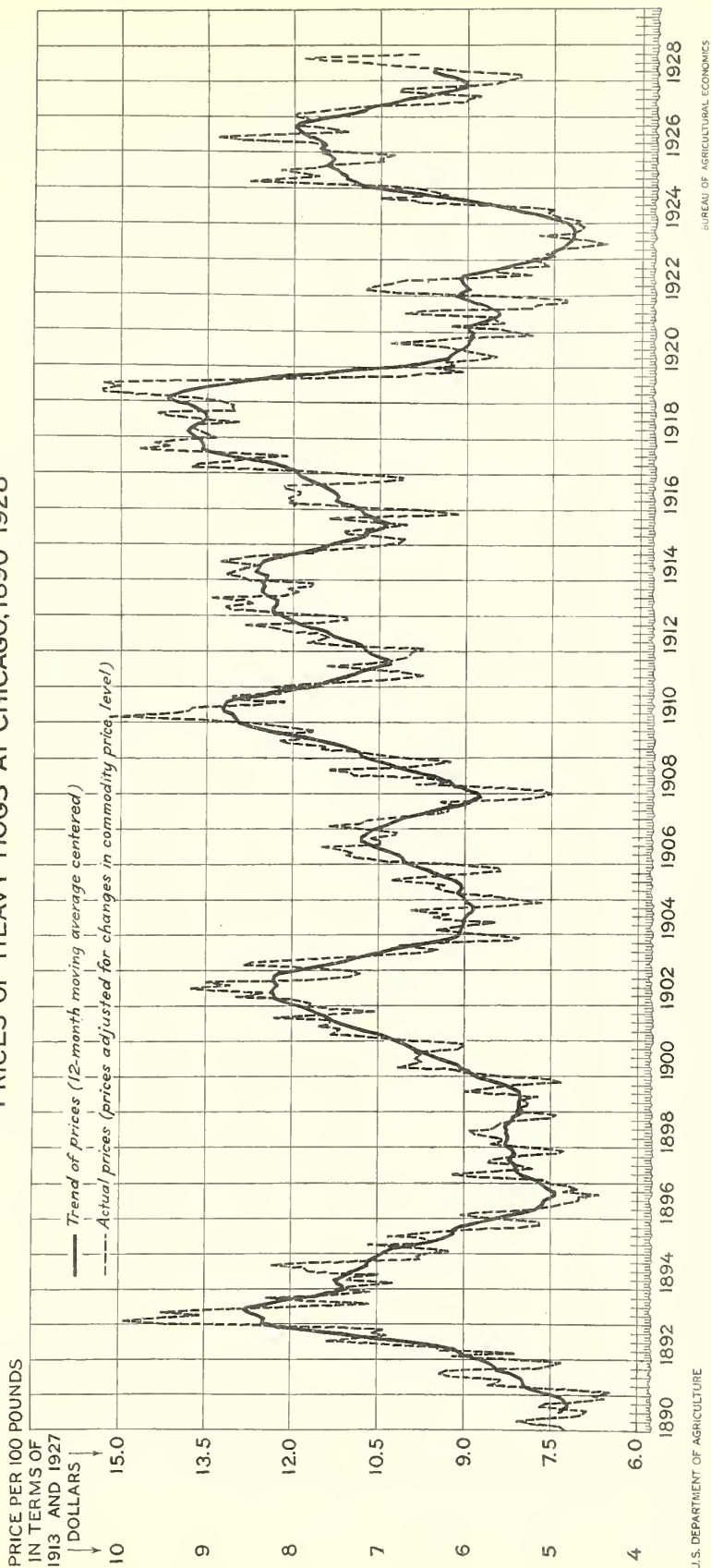
RETAIL PRICES OF FRESH BEEF 1921 TO DATE



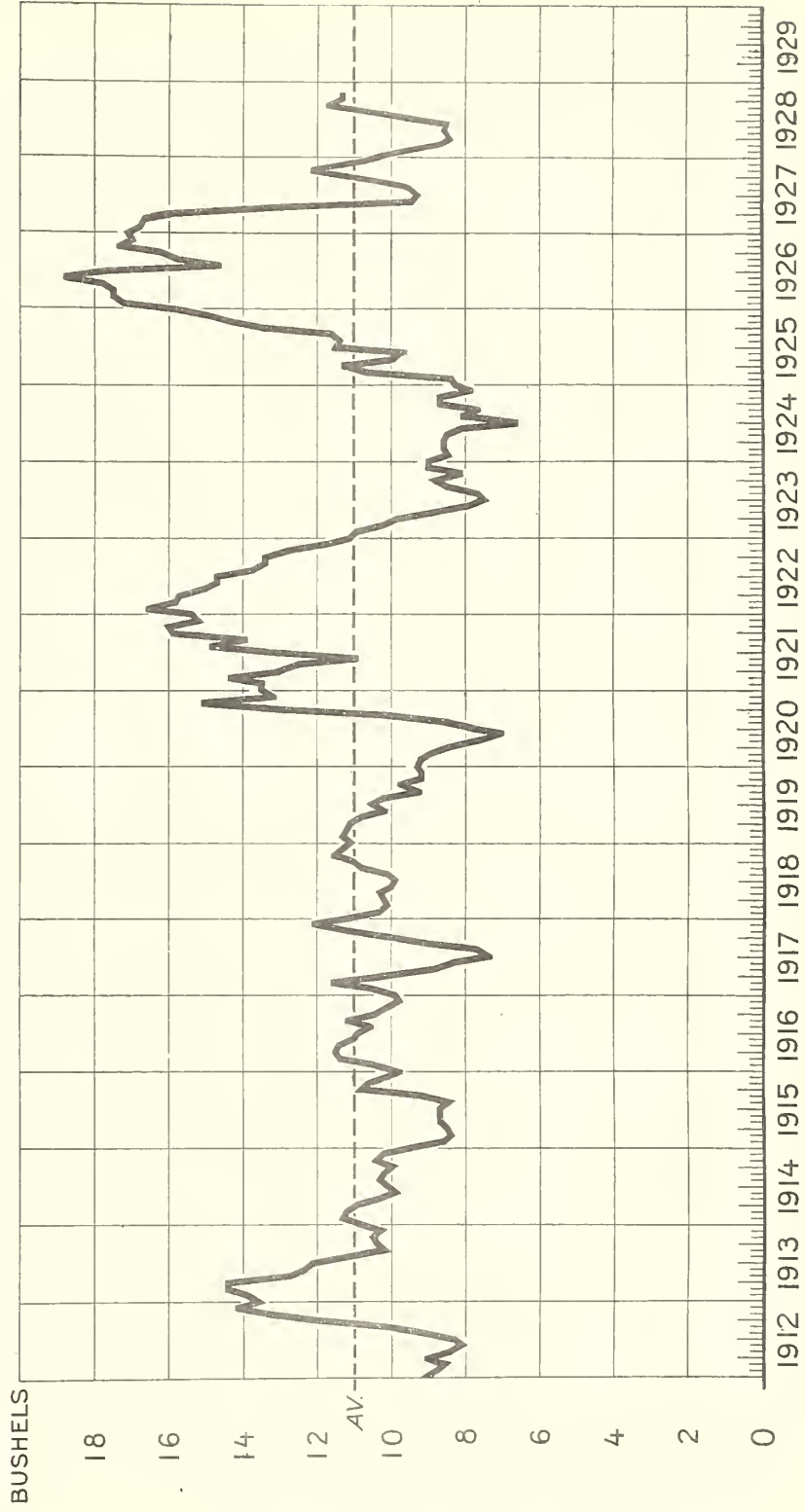
AVERAGE PRICES OF STOCKER AND FEEDER STEERS SHIPPED FROM CHICAGO



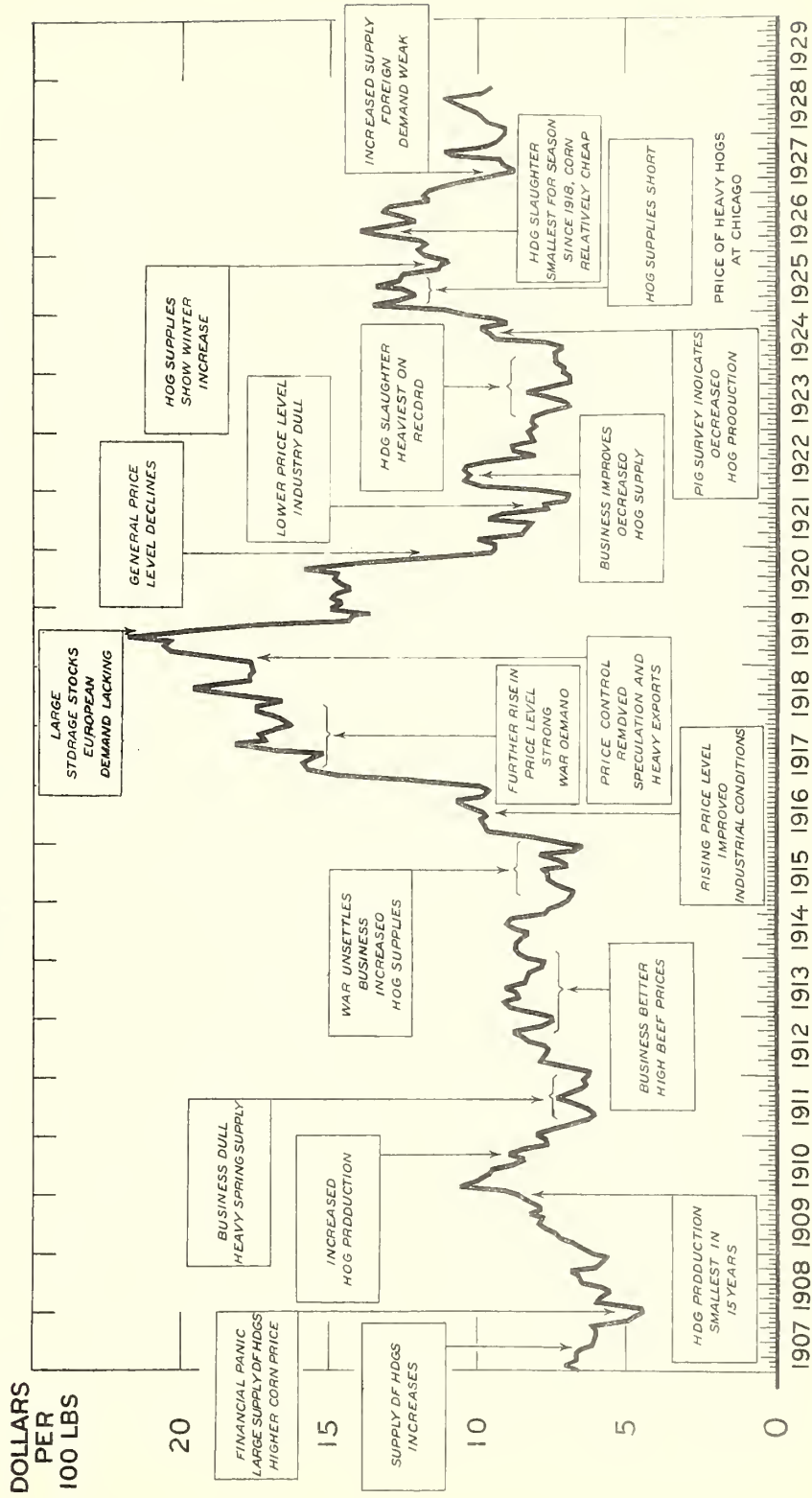
PRICES OF HEAVY HOGS AT CHICAGO, 1890-1928



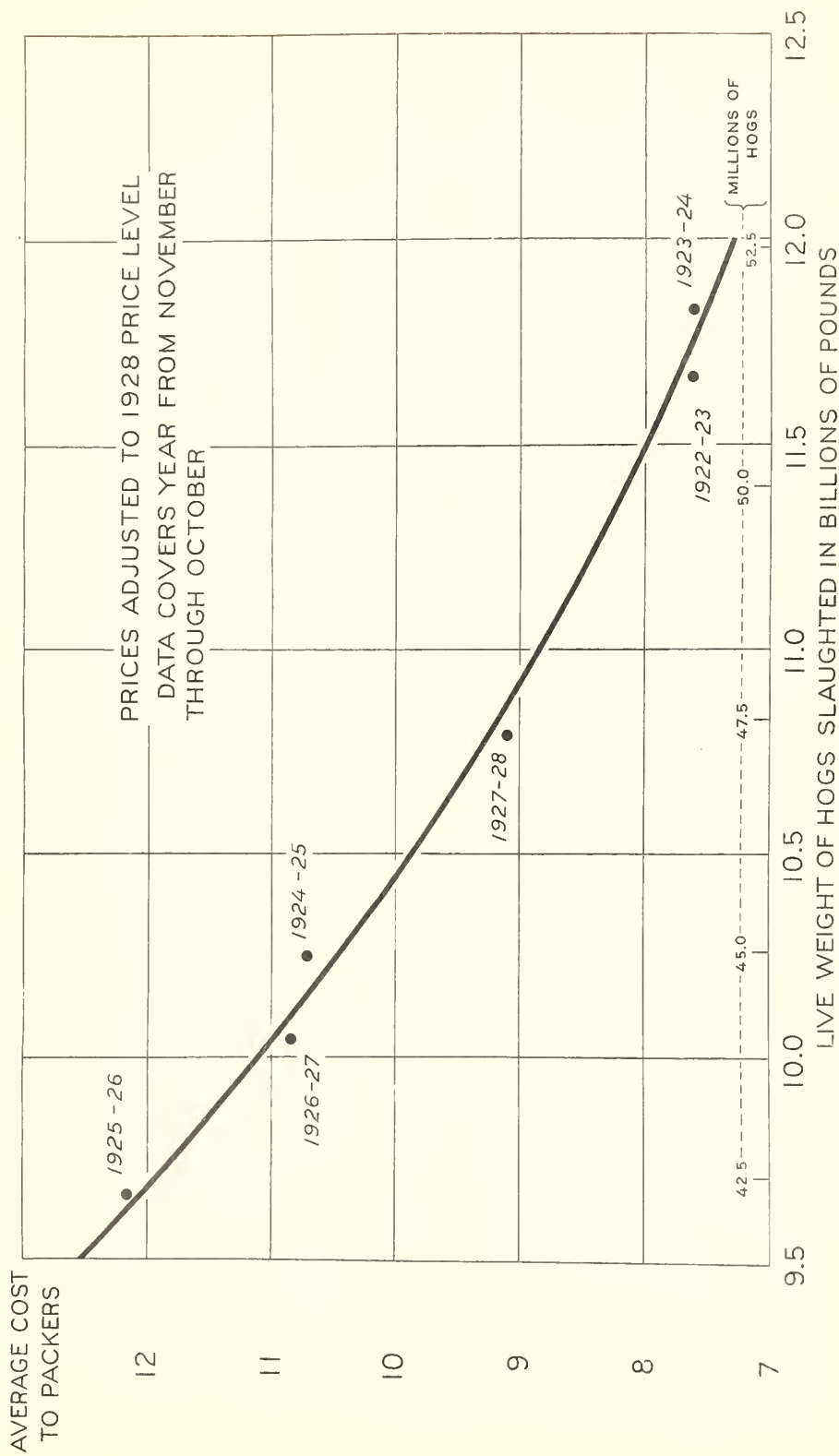
CORN - HOG RATIO - 1912 TO DATE



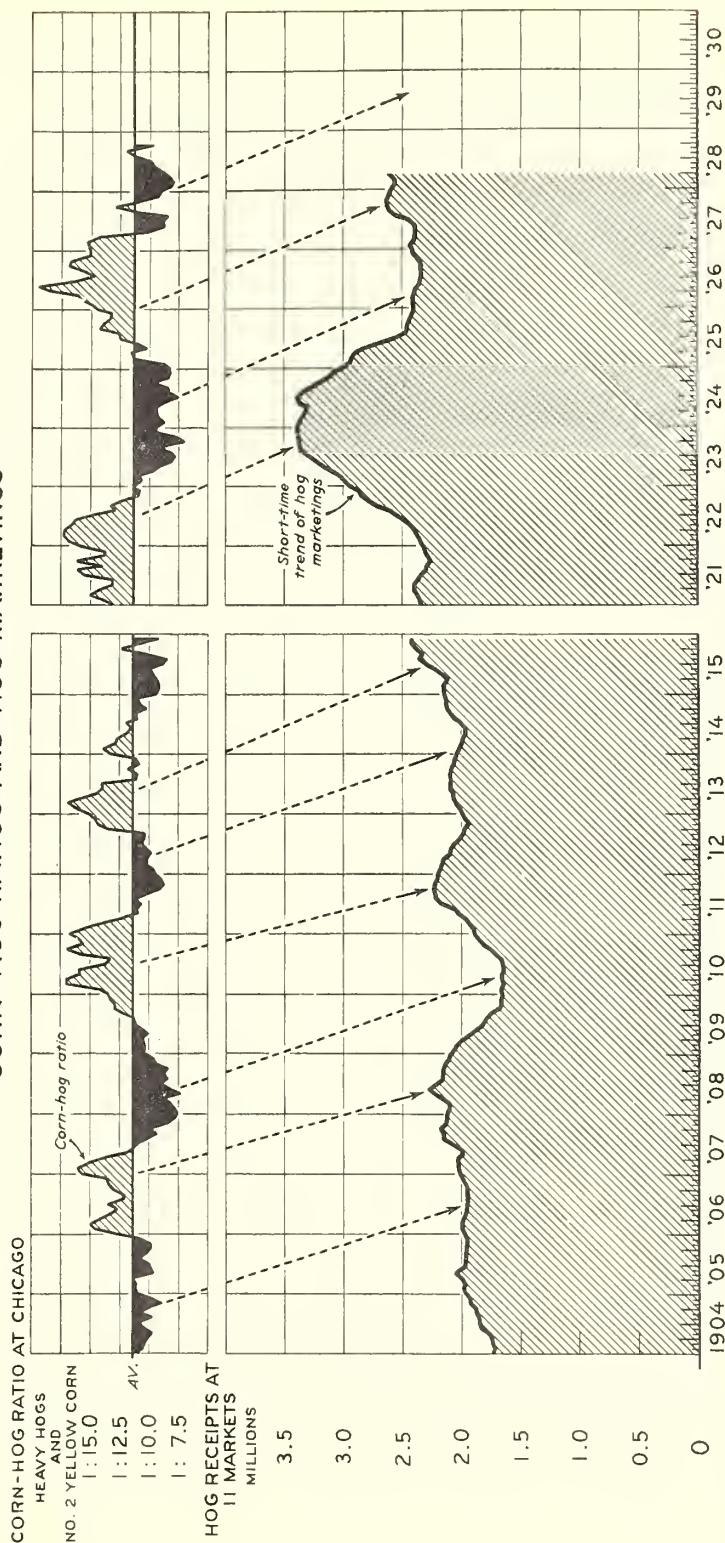
FACTORS AFFECTING THE PRICE OF HOGS



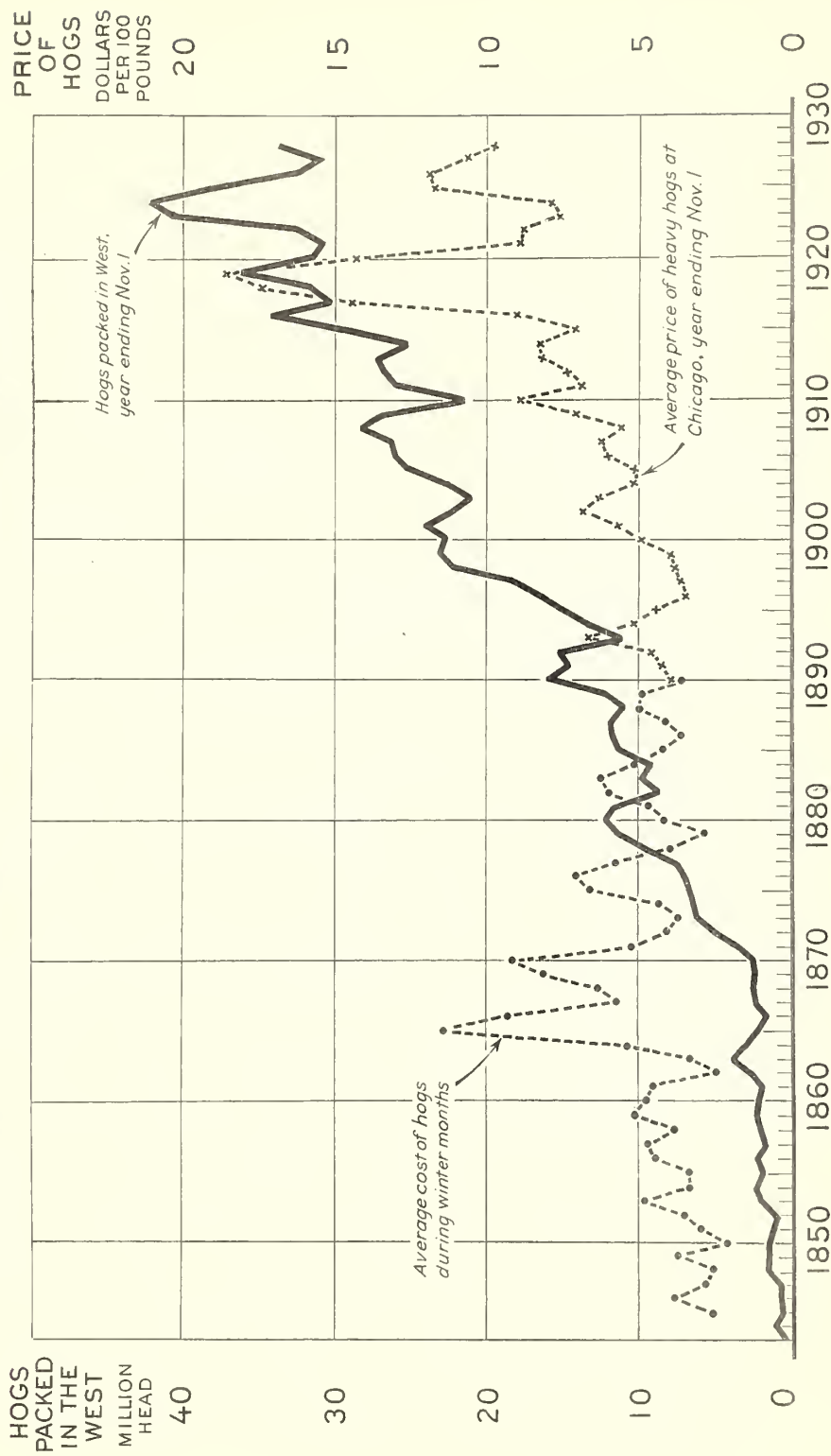
TOTAL WEIGHT OF HOGS SLAUGHTERED YEARLY UNDER FEDERAL INSPECTION AND HOG PRICES



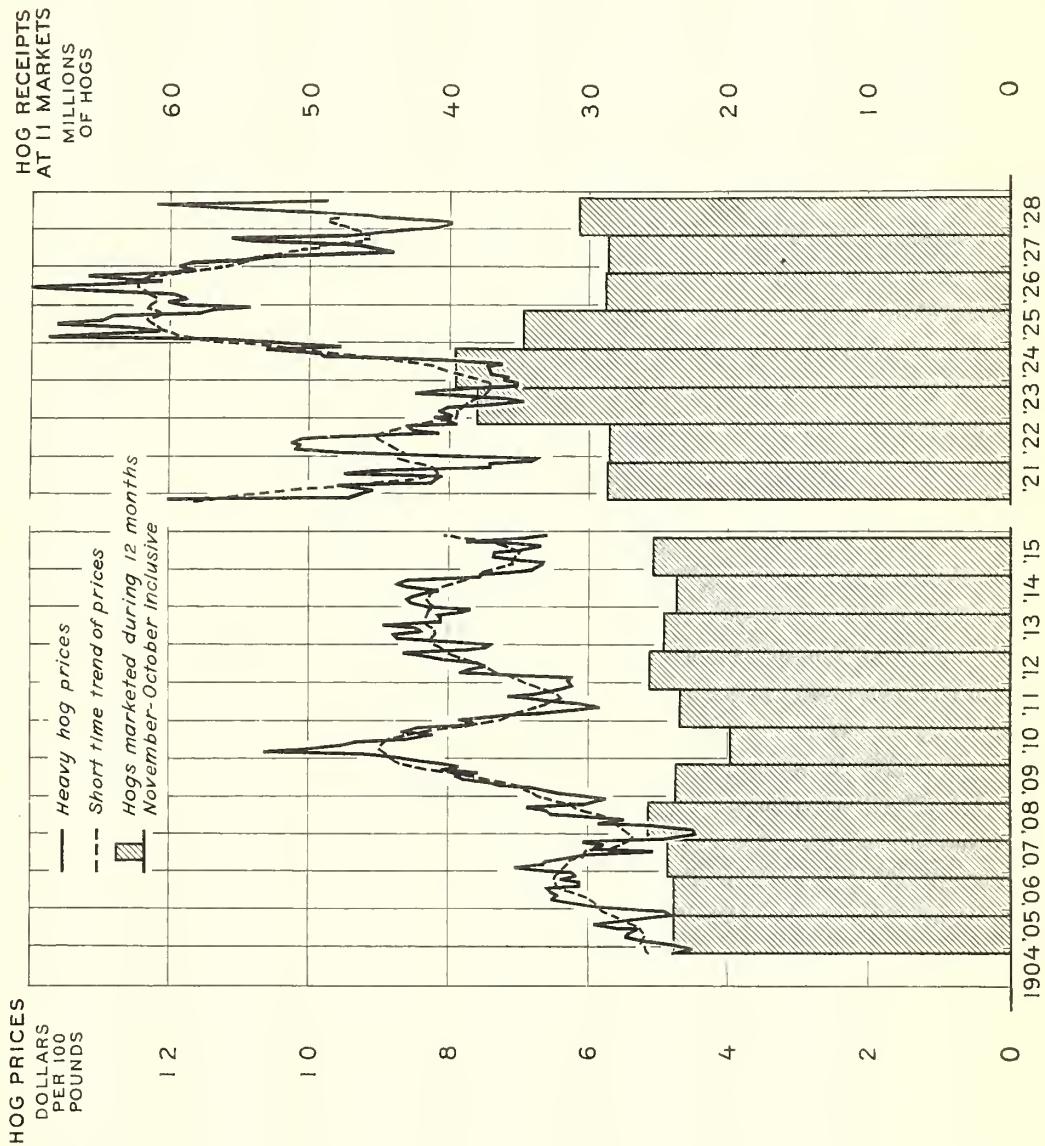
CORN-HOG RATIOS AND HOG MARKETINGS



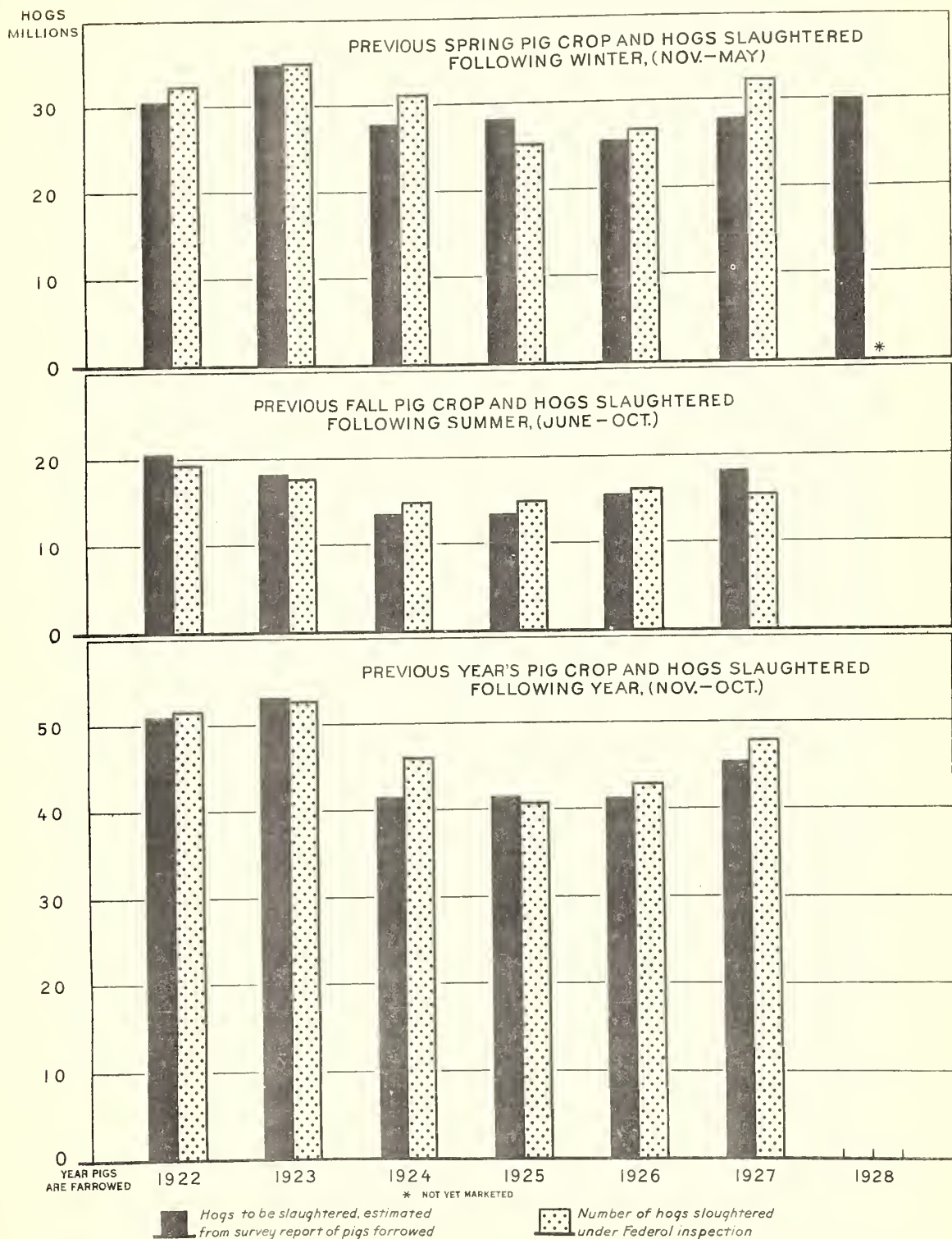
HOG PRICES AND SLAUGHTERINGS SINCE 1840



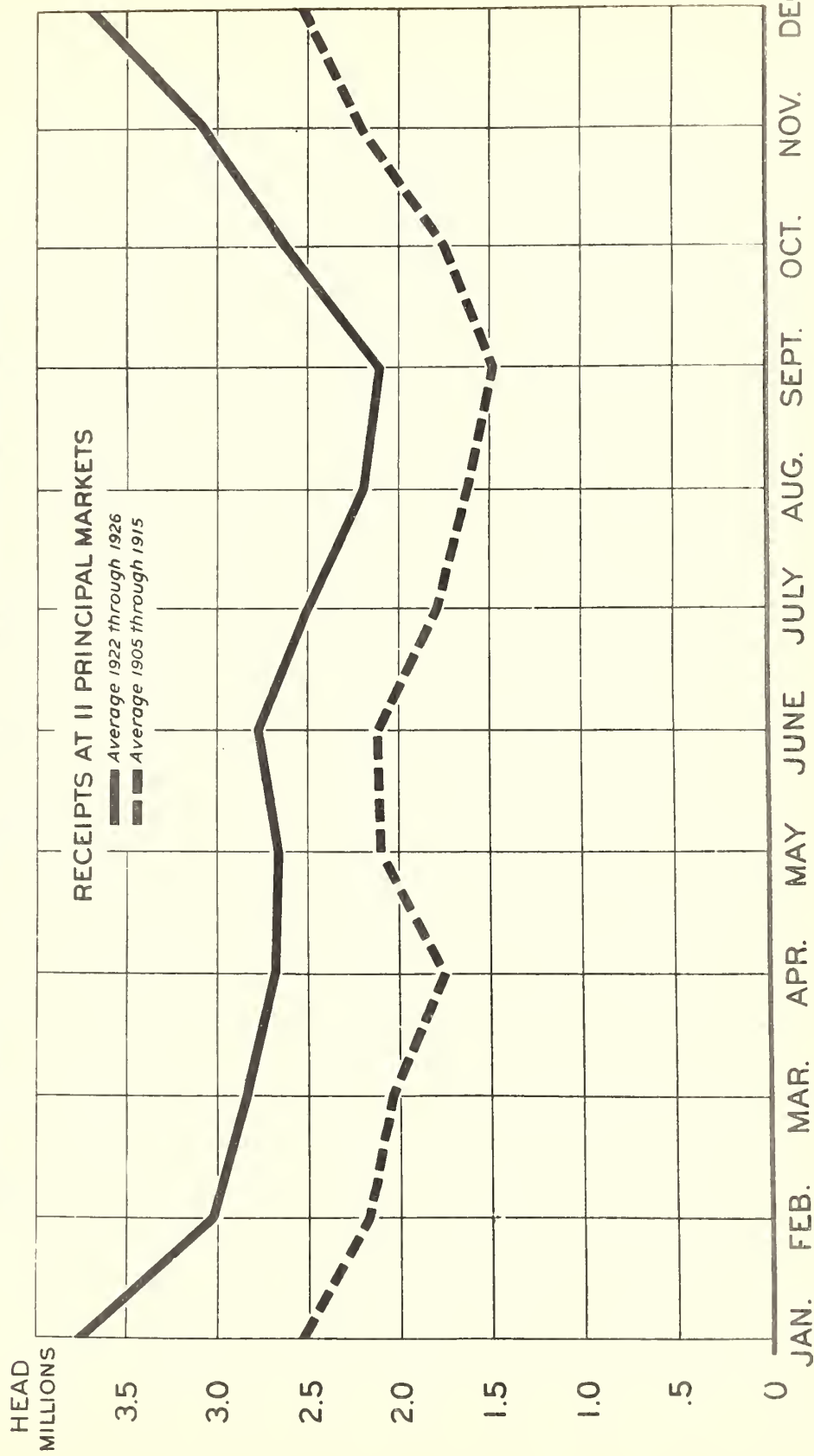
HOG MARKETINGS AND HOG PRICES



CORN BELT PIG CROP AND HOGS SLAUGHTERED

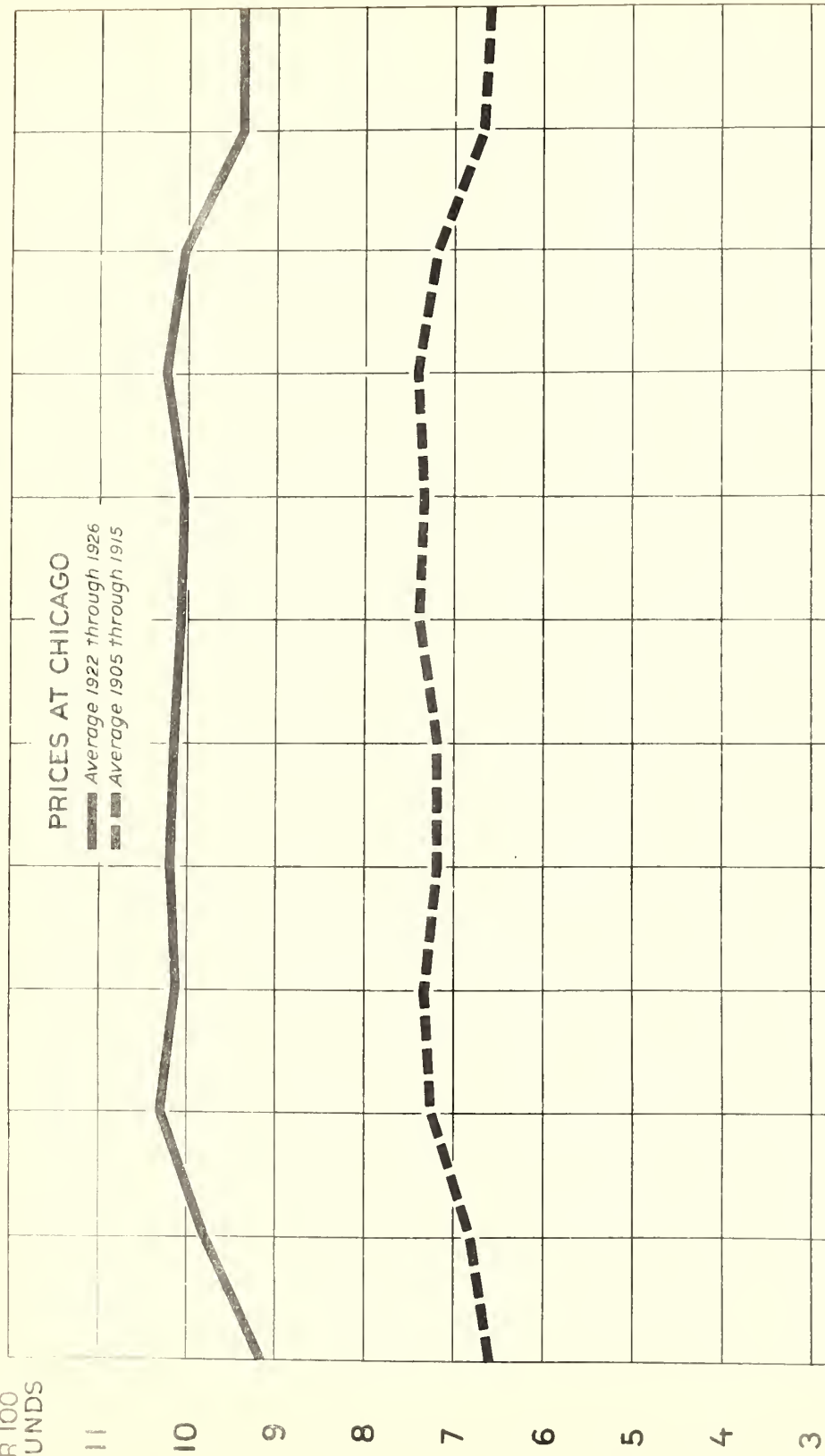


SEASONAL CHANGE IN HOG MARKETINGS

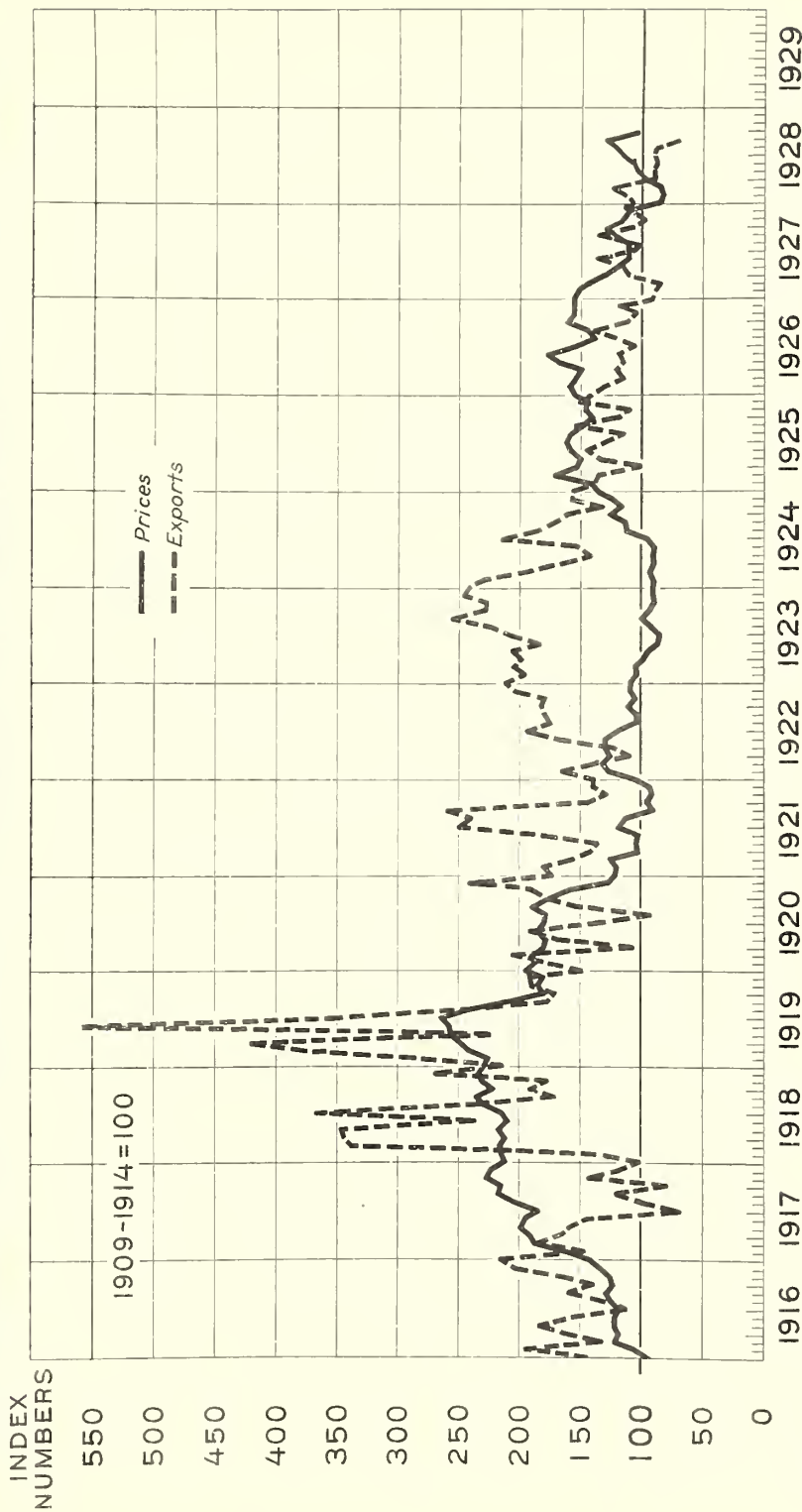


SEASONAL CHANGE IN HOG PRICES

DOLLARS
PER 100
POUNDS



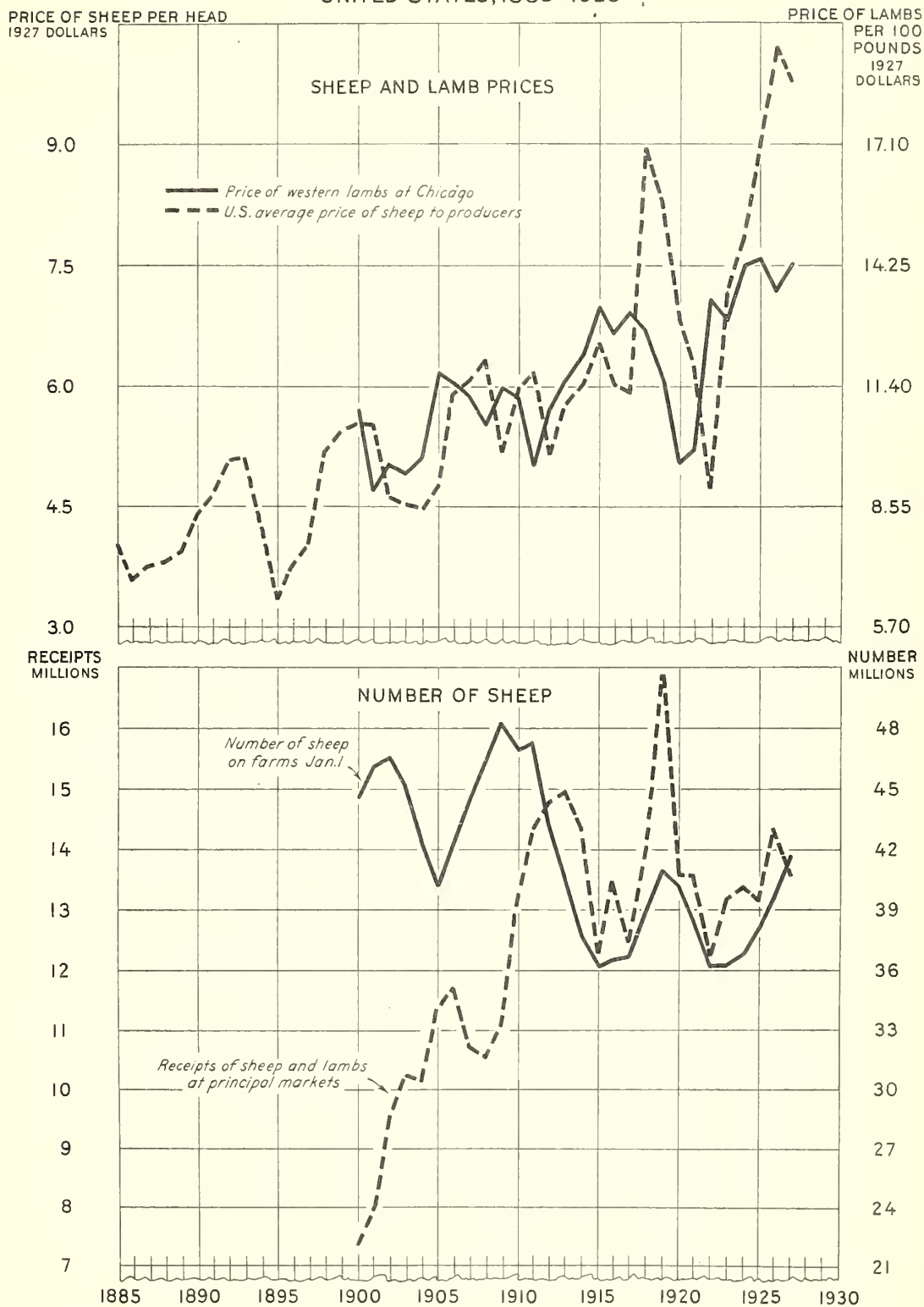
HOG PRICES AND EXPORTS OF PORK AND PORK PRODUCTS, 1916 - 1928



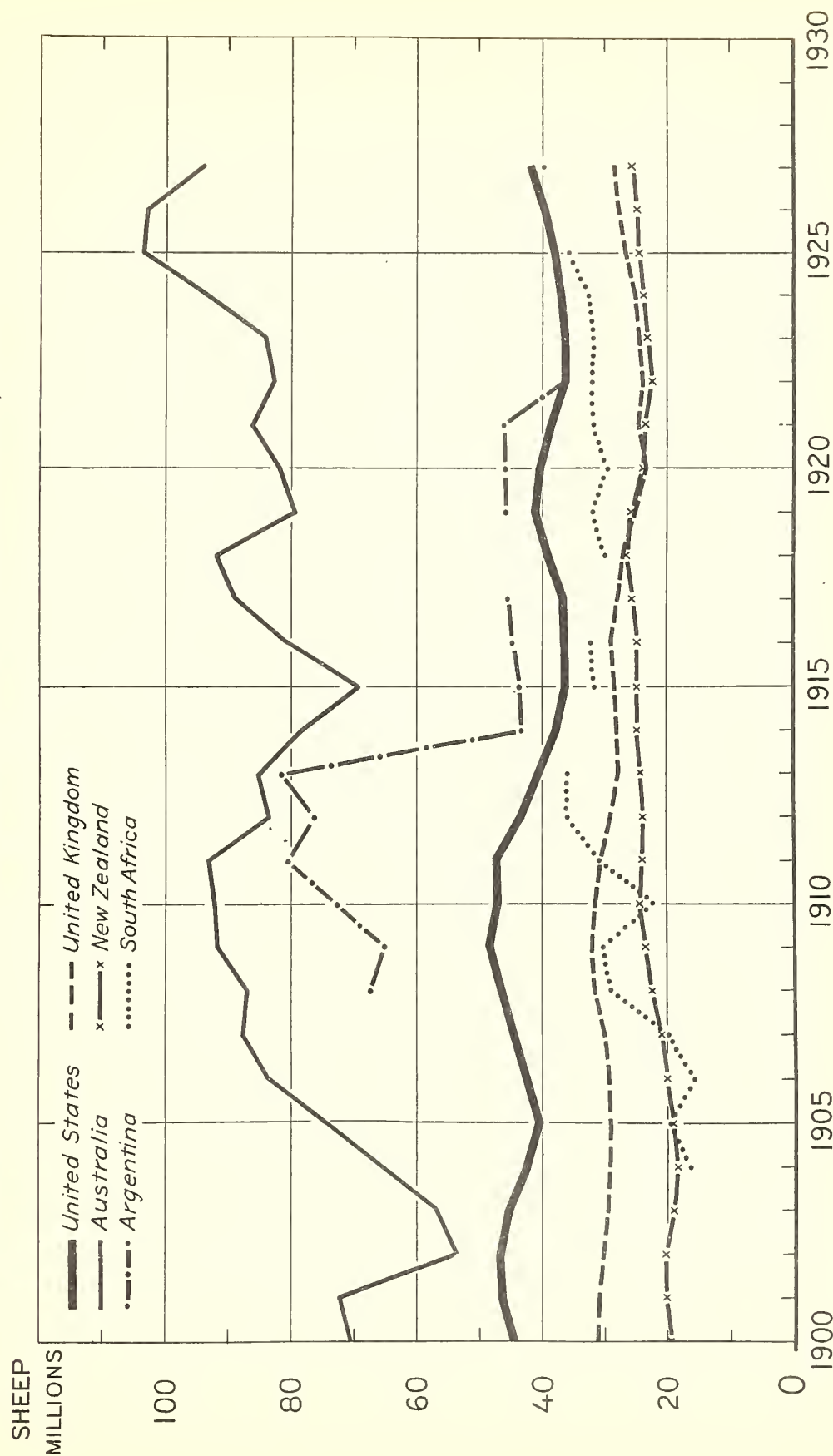
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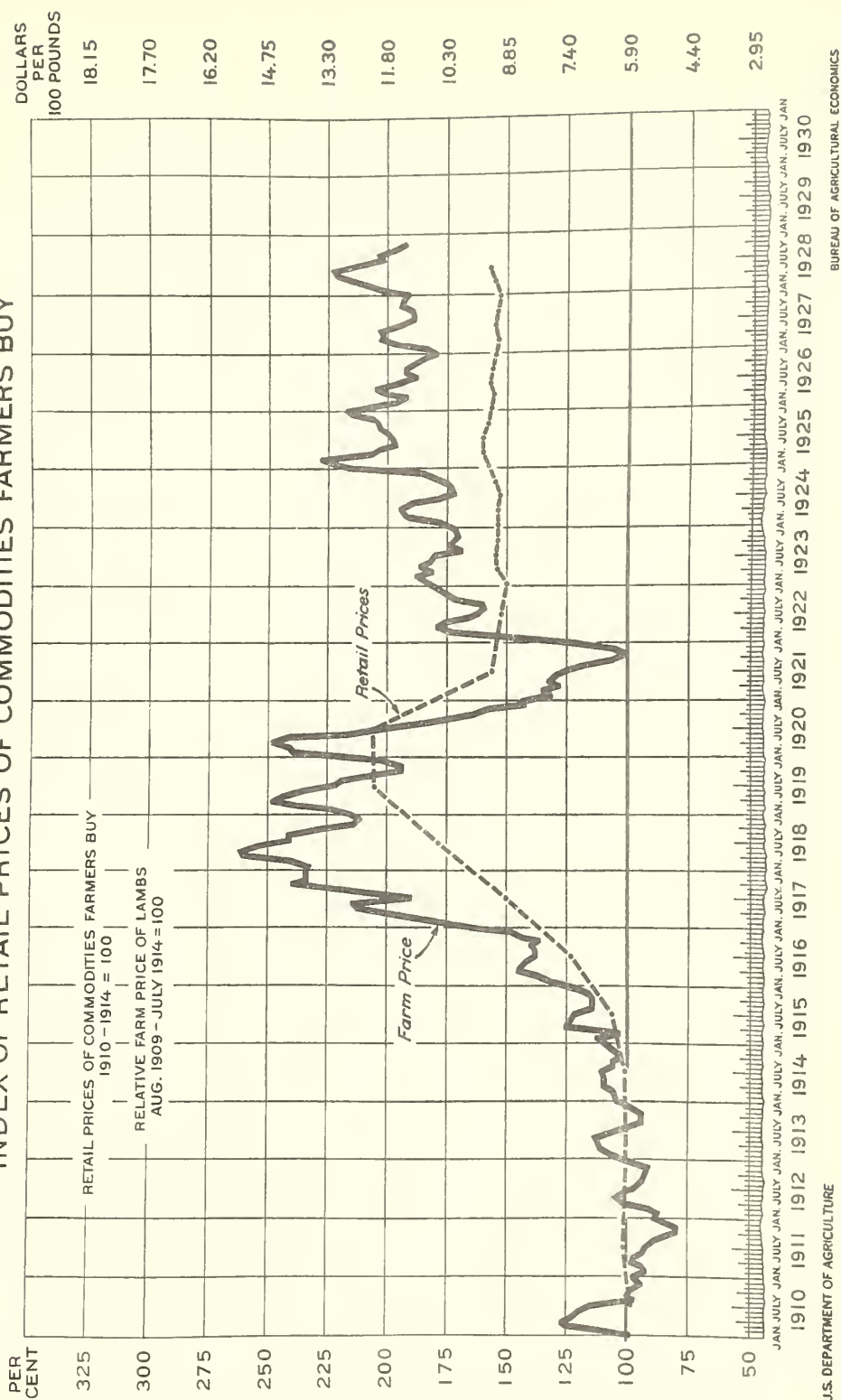
CYCLES IN SHEEP PRICES AND NUMBERS UNITED STATES, 1885-1928



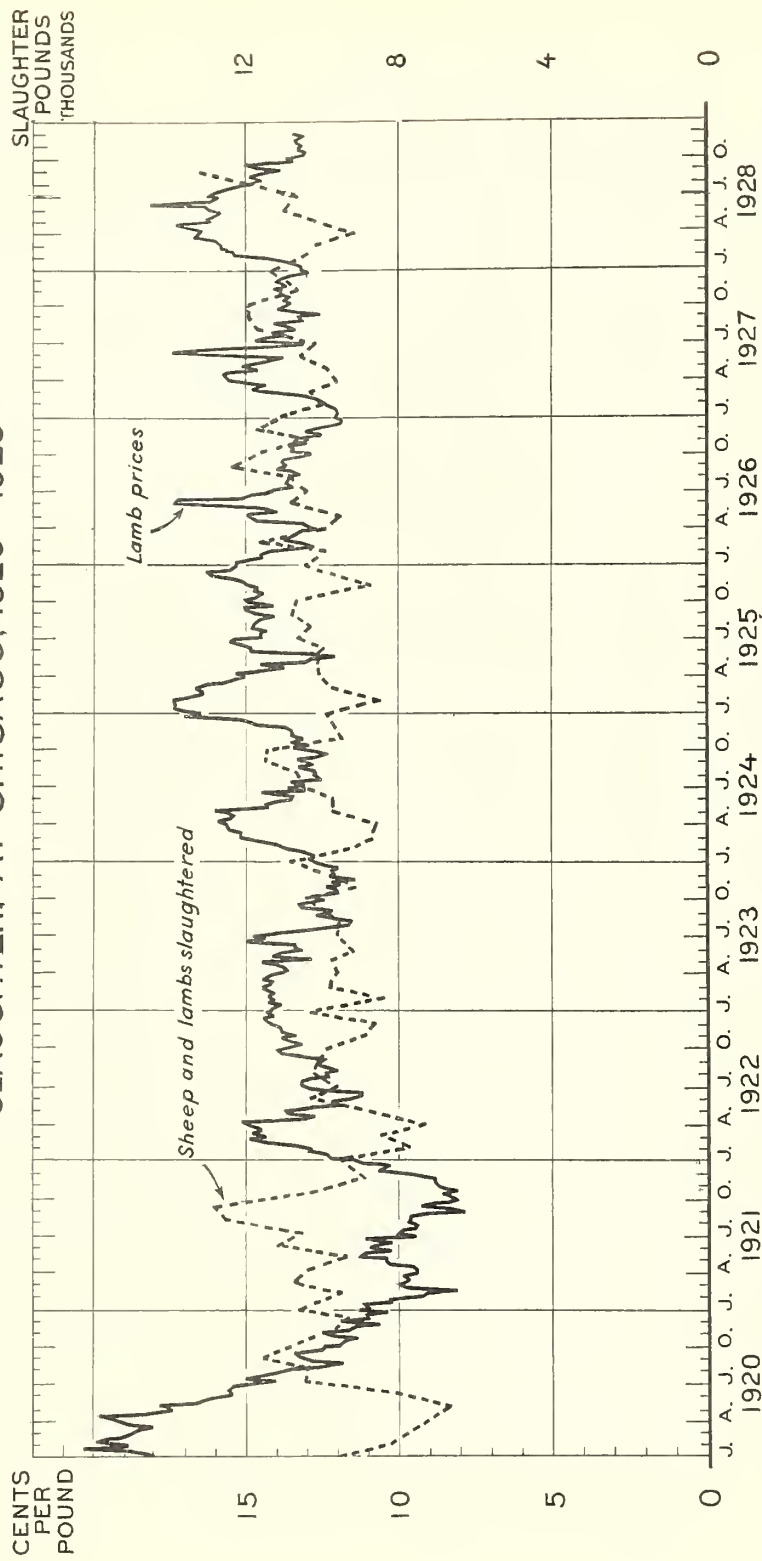
NUMBER OF SHEEP IN IMPORTANT COUNTRIES, 1900-1927



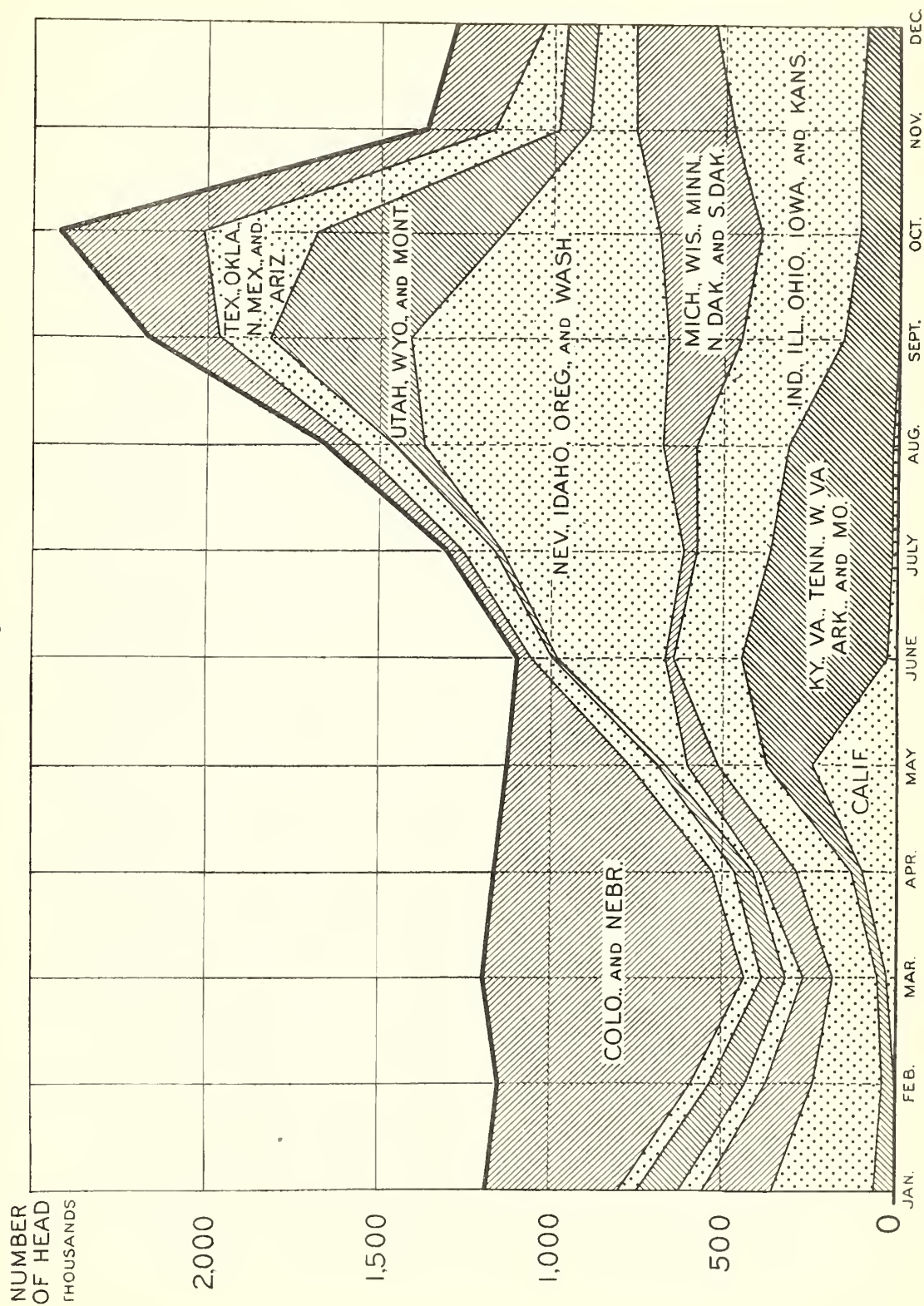
FARM PRICES OF LAMBS



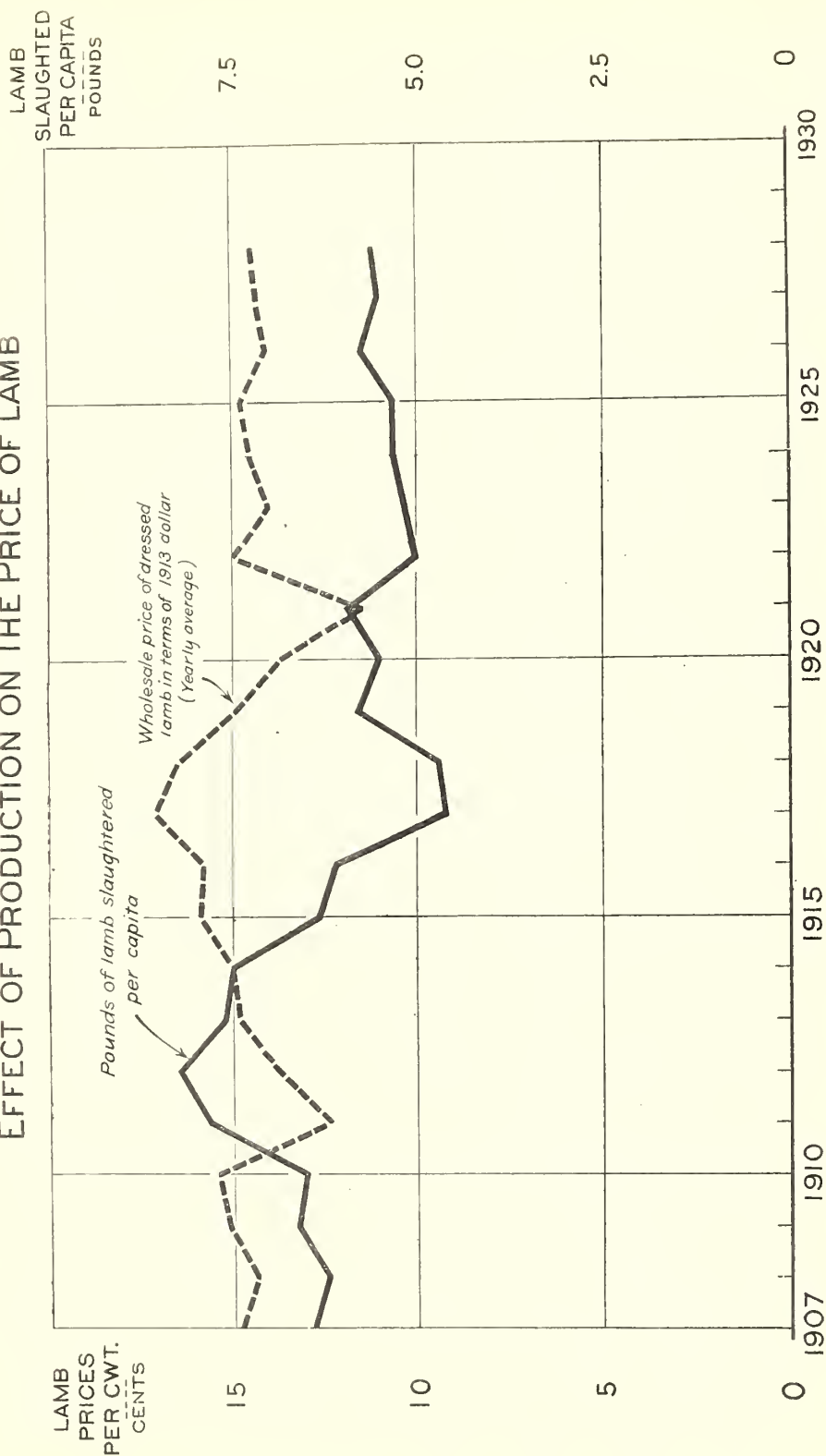
SHEEP AND LAMBS: WEEKLY AVERAGE PRICE AND MONTHLY SLAUGHTER, AT CHICAGO, 1920 - 1928



SHEEP AND LAMBS ORIGIN OF MARKET RECEIPTS BY MONTHS 1925

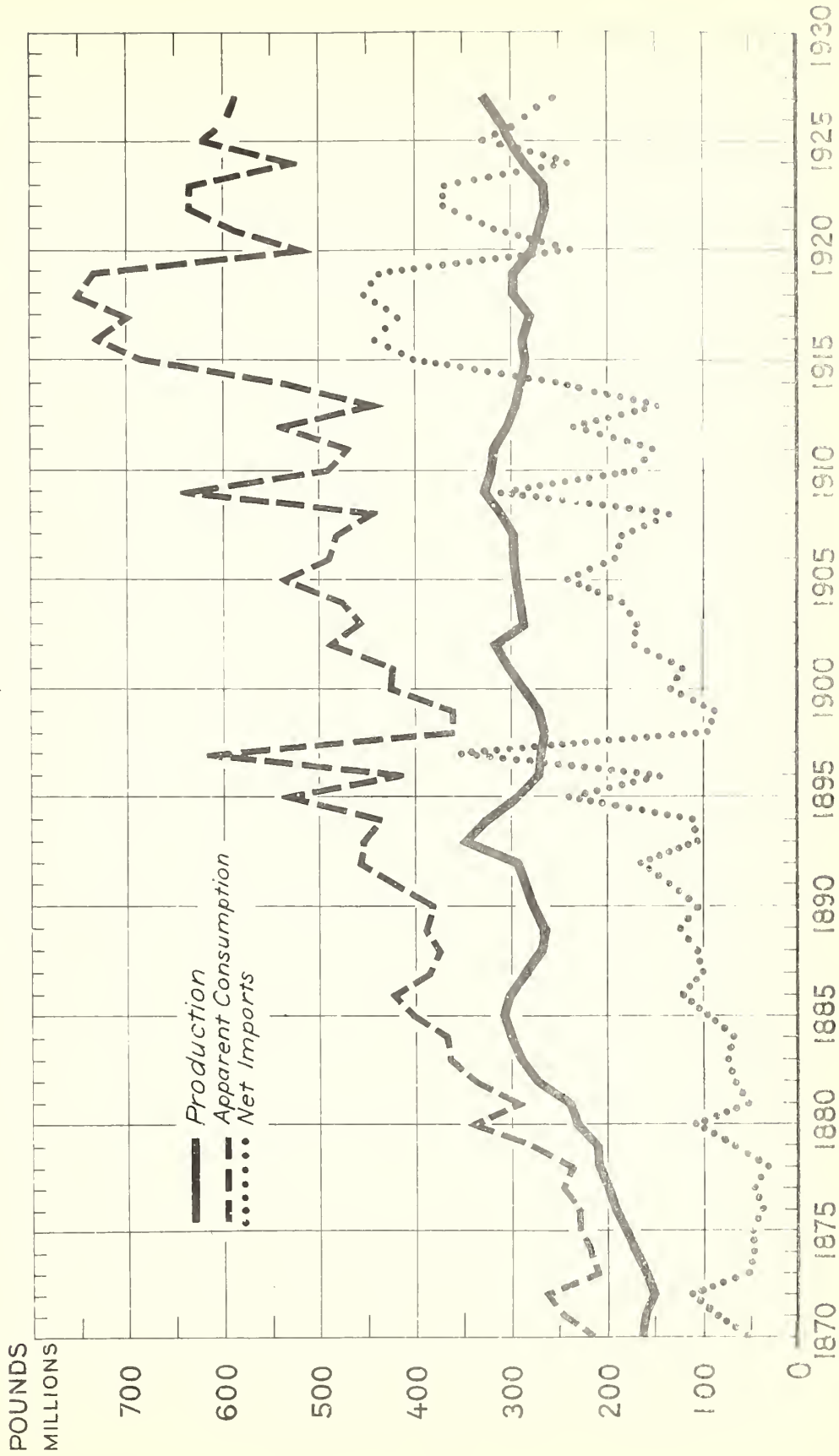


EFFECT OF PRODUCTION ON THE PRICE OF LAMB

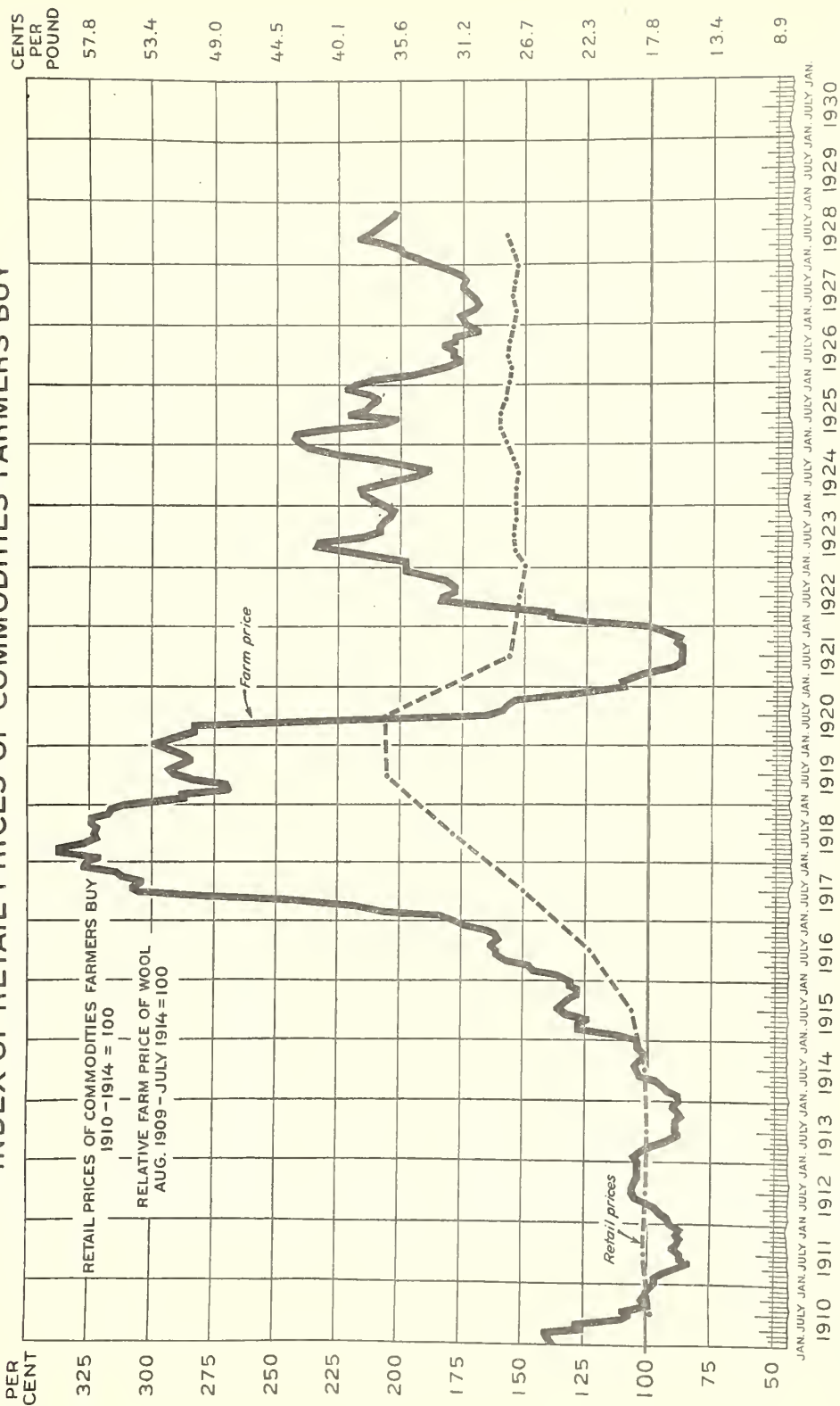


WOOL PRODUCTION, NET IMPORTS, AND APPARENT CONSUMPTION

United States, 1870-1927



INDEX OF RETAIL PRICES OF COMMODITIES FARMERS BUY



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WOOL PRICES AND IMPORTS, JAN. 1921 TO DATE

CENTS PER
POUND

160
140
120
100
80
60
40
20
0

ACTUAL PRICES

Boston Fine Territory Combing

London 64-70s

POUNDS
MILLIONS

80
70
60
50
40
30
20
10
0

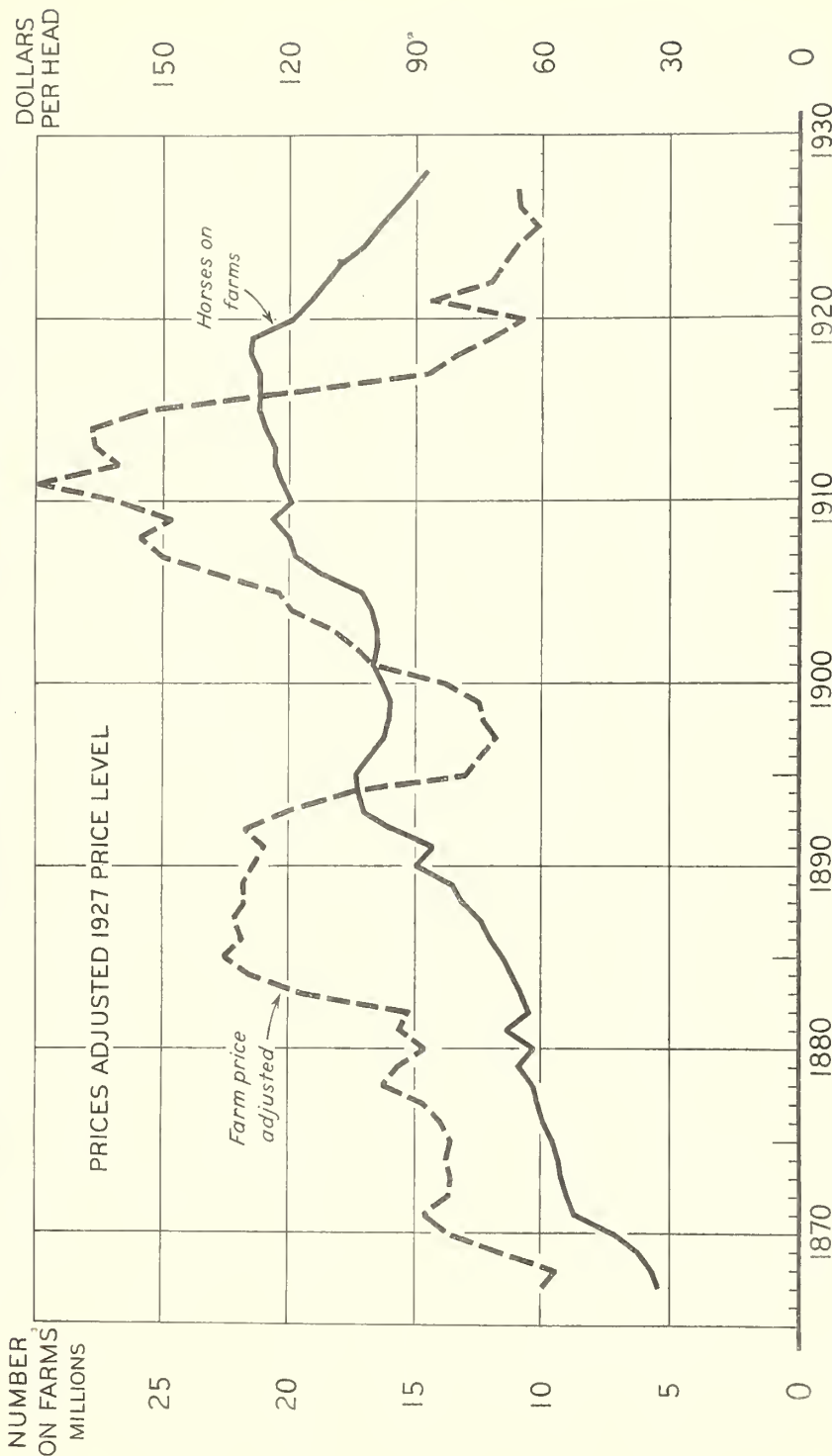
IMPORTS

Combing, Clothing, etc.

(EXCLUSIVE OF CARPET)

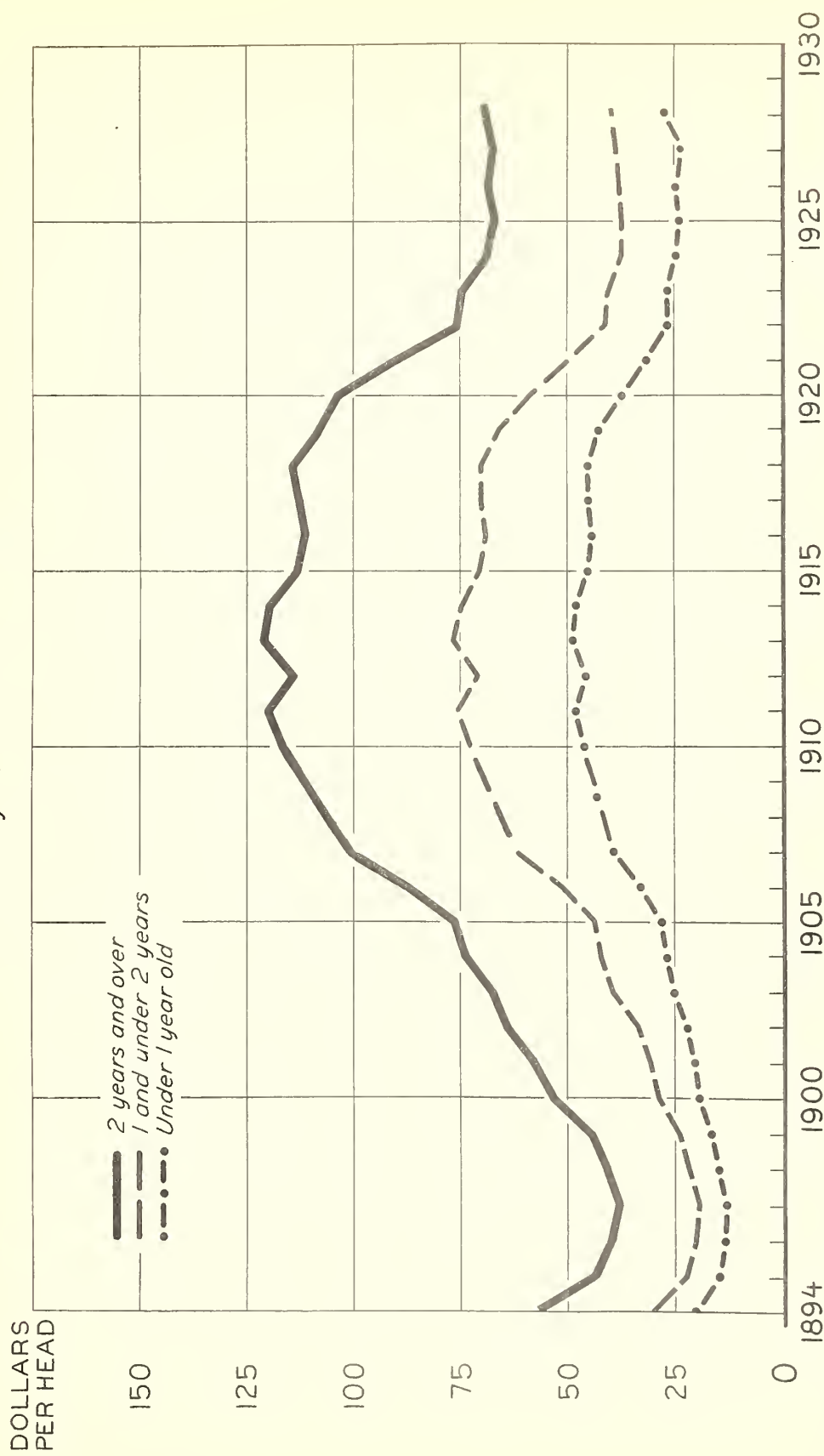
1921 1922 1923 1924 1925 1926 1927 1928

HORSES: NUMBER ON FARMS AND ADJUSTED FARM PRICE, 1867-1928

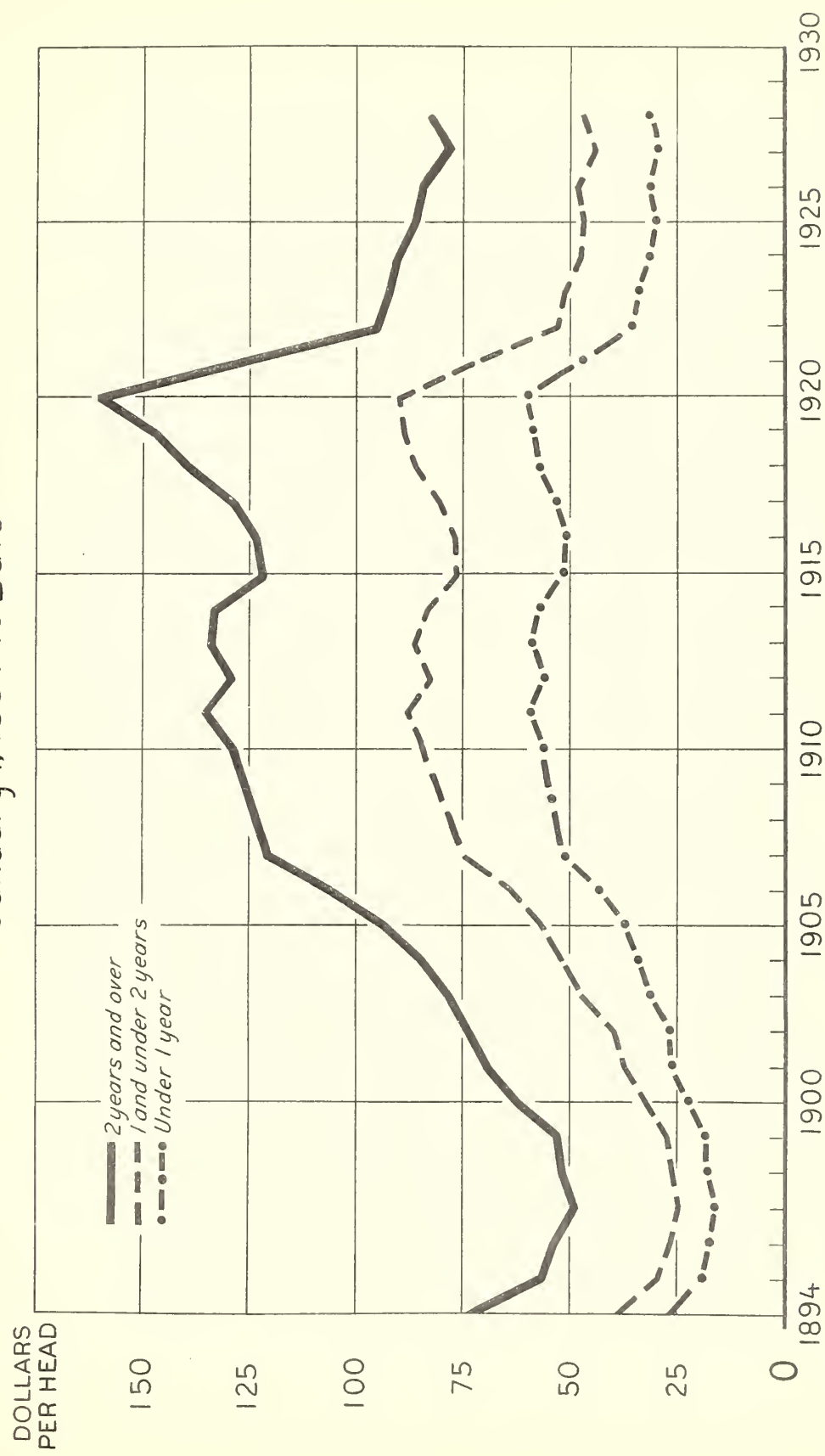


FARM PRICES OF HORSES BY AGE GROUPS

January 1, 1894 to Date

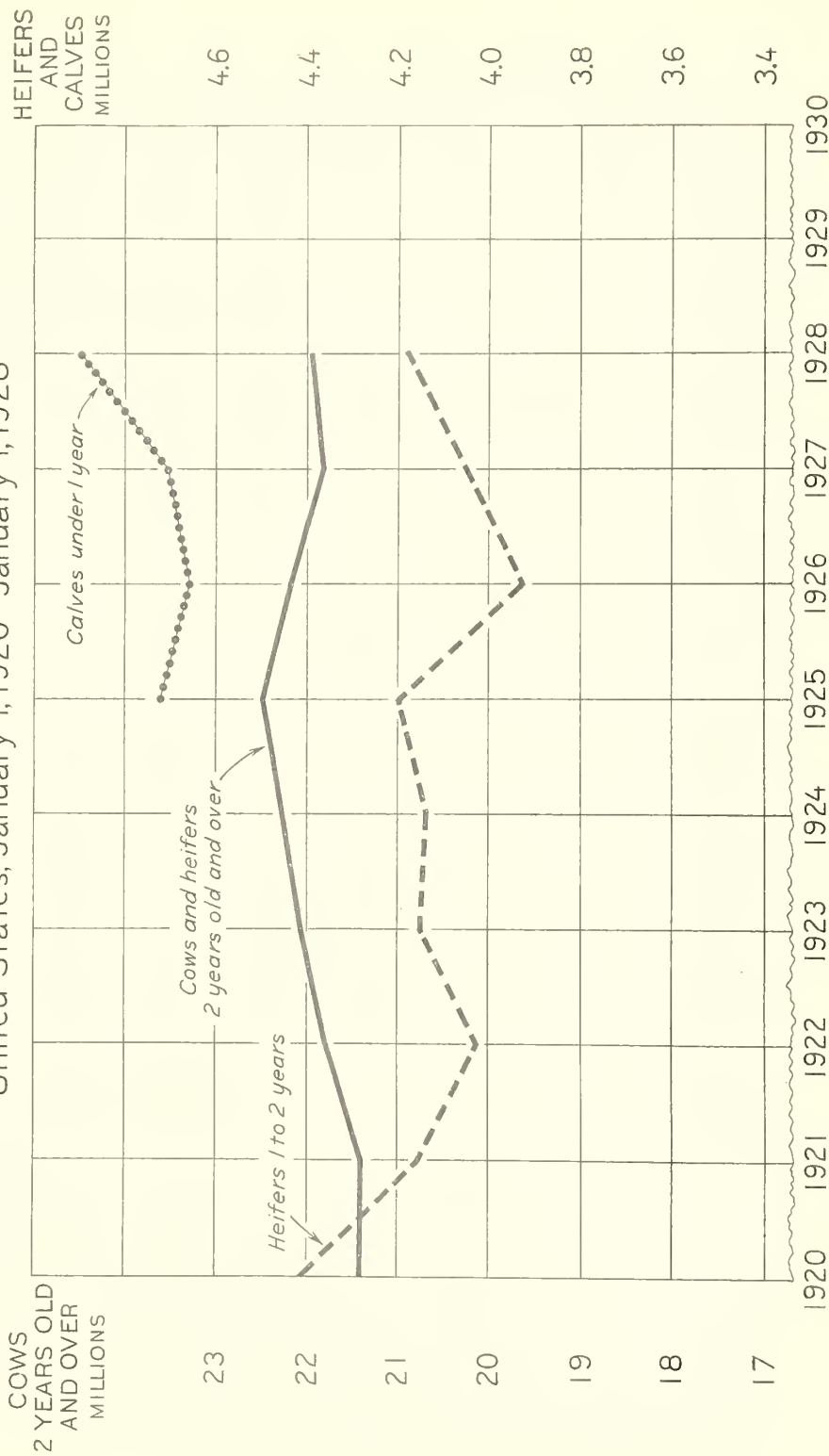


FARM PRICES OF MULES BY AGE GROUPS January 1, 1894 to Date

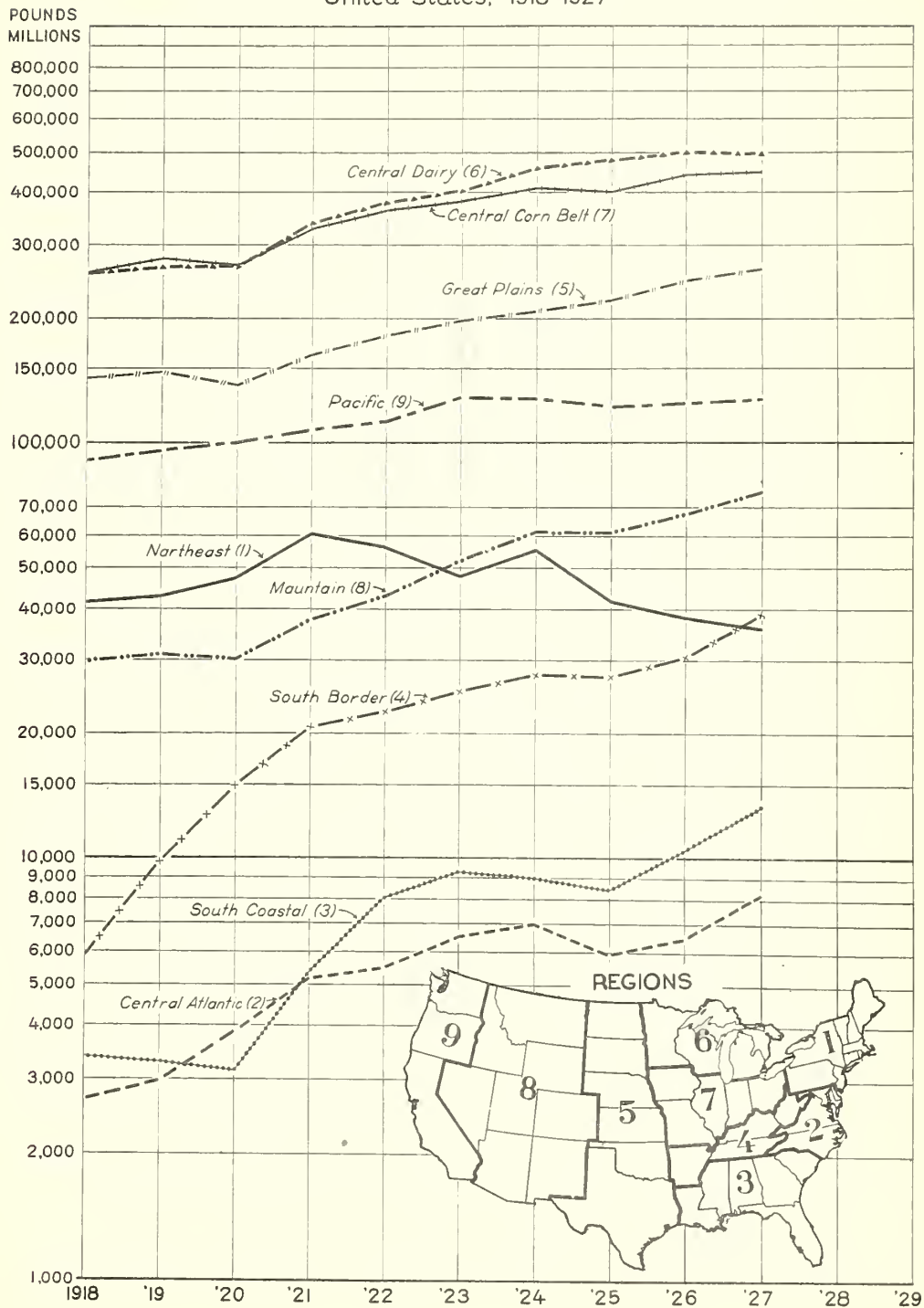


COWS, HEIFERS, AND CALVES BEING KEPT FOR MILK COWS

United States, January 1, 1920-January 1, 1928

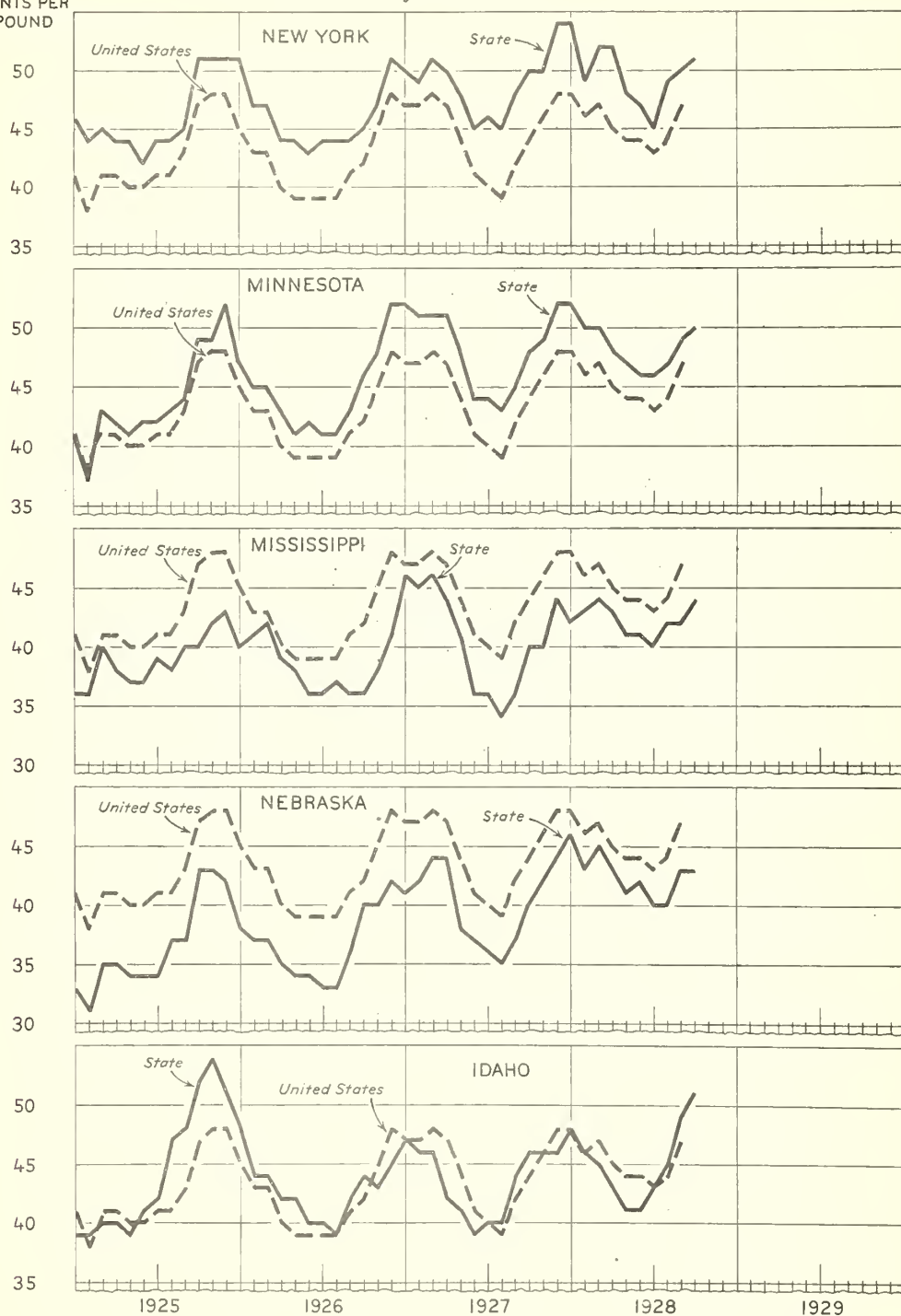


YEARLY PRODUCTION OF CREAMERY BUTTER BY REGIONS United States, 1918-1927

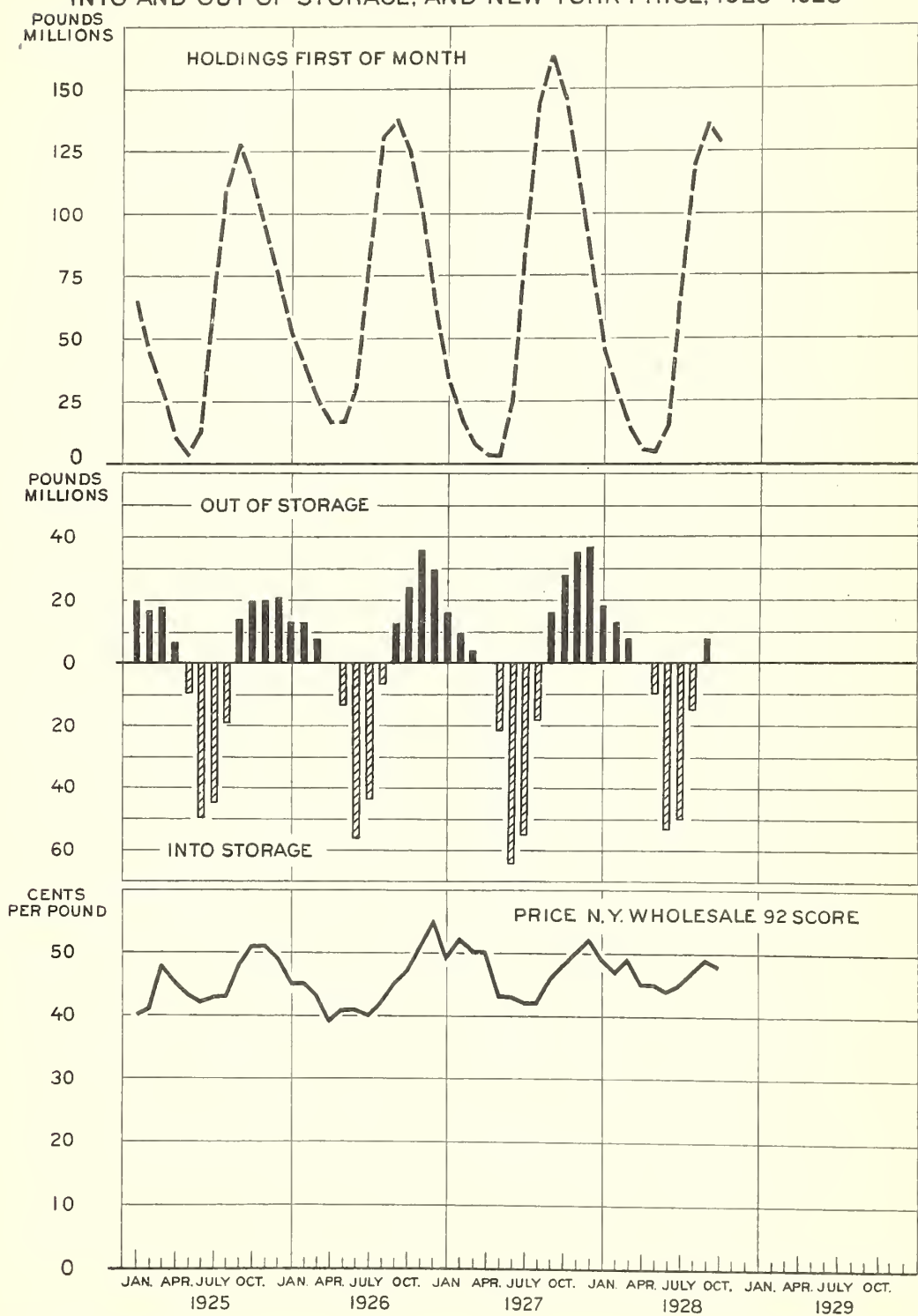


AVERAGE FARM PRICE OF BUTTERFAT IN SELECTED STATES AND THE UNITED STATES Monthly, 1925-1928

CENTS PER
POUND

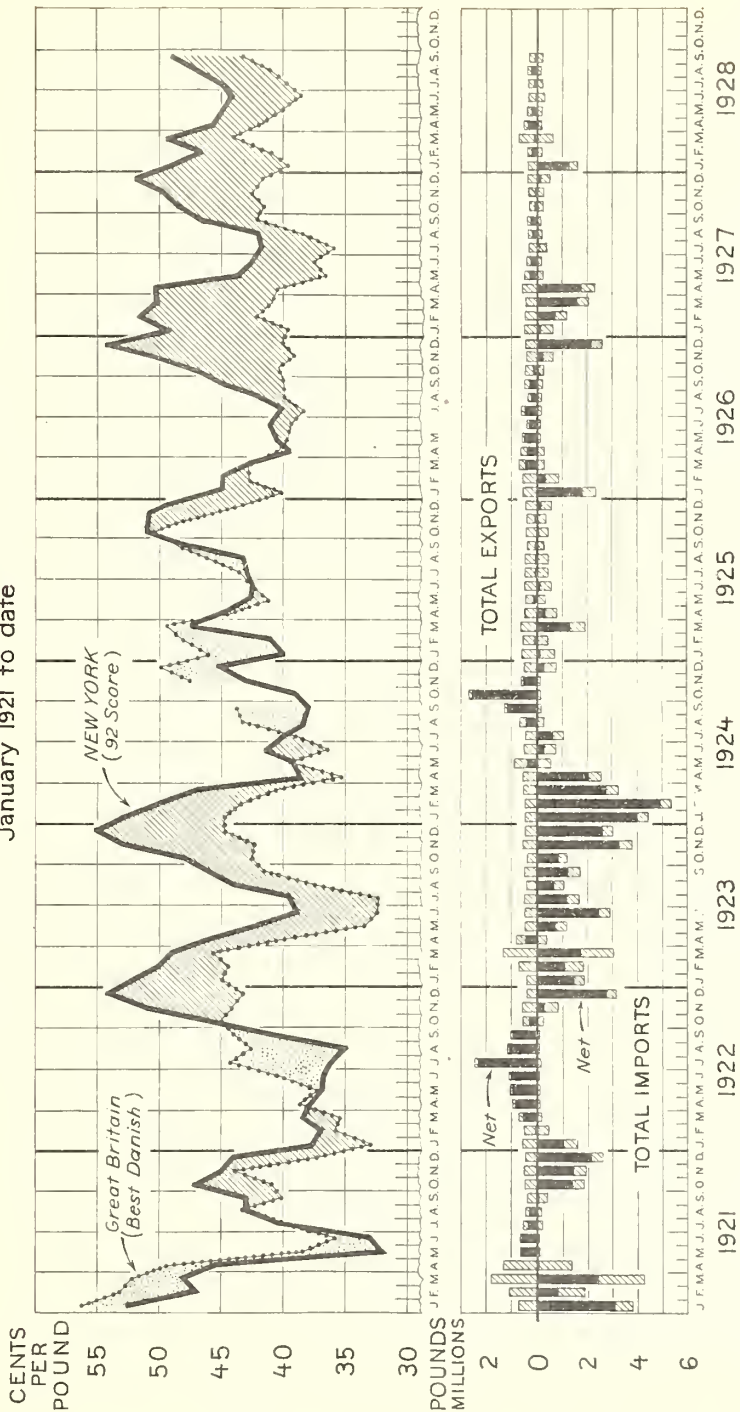


CREAMERY BUTTER: COLD-STORAGE HOLDINGS, NET MOVEMENT INTO AND OUT OF STORAGE, AND NEW YORK PRICE, 1925-1928



MONTHLY AVERAGE PRICES OF BUTTER IN GREAT BRITAIN AND NEW YORK AND TOTAL MONTHLY IMPORTS AND EXPORTS OF BUTTER INTO UNITED STATES

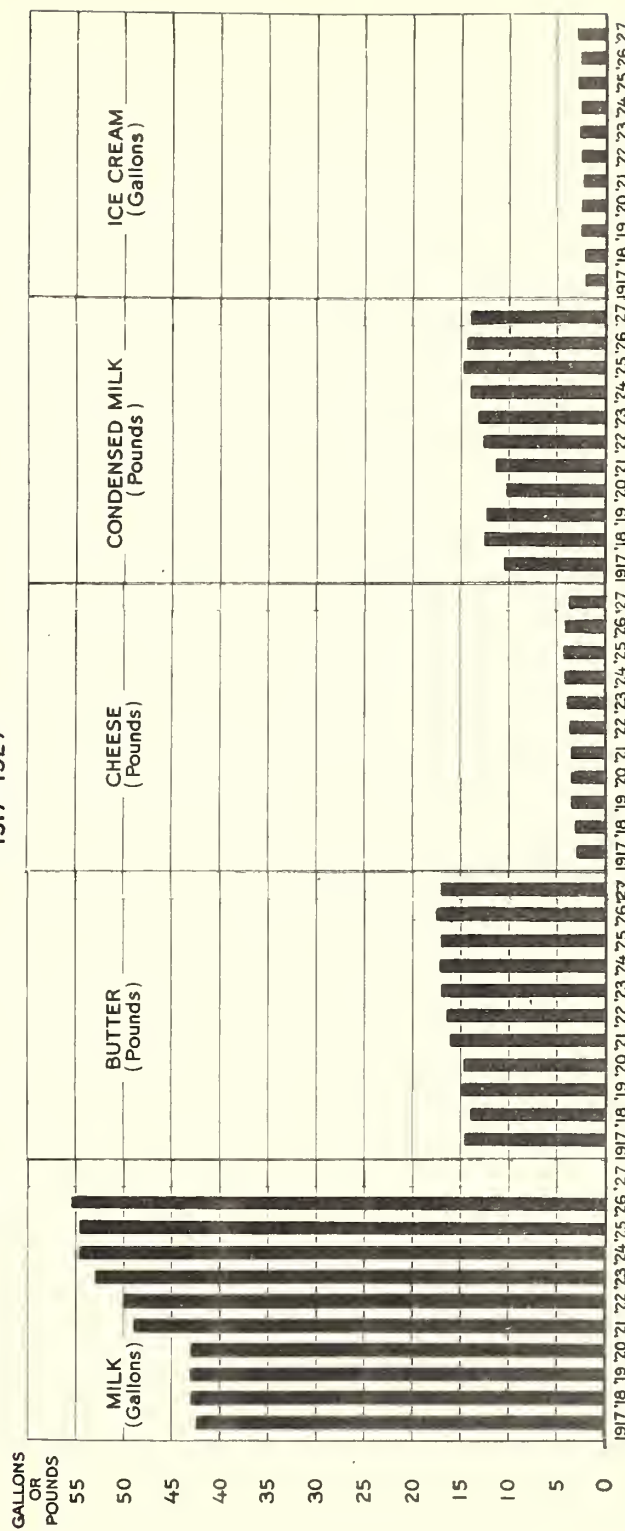
January 1921 to date



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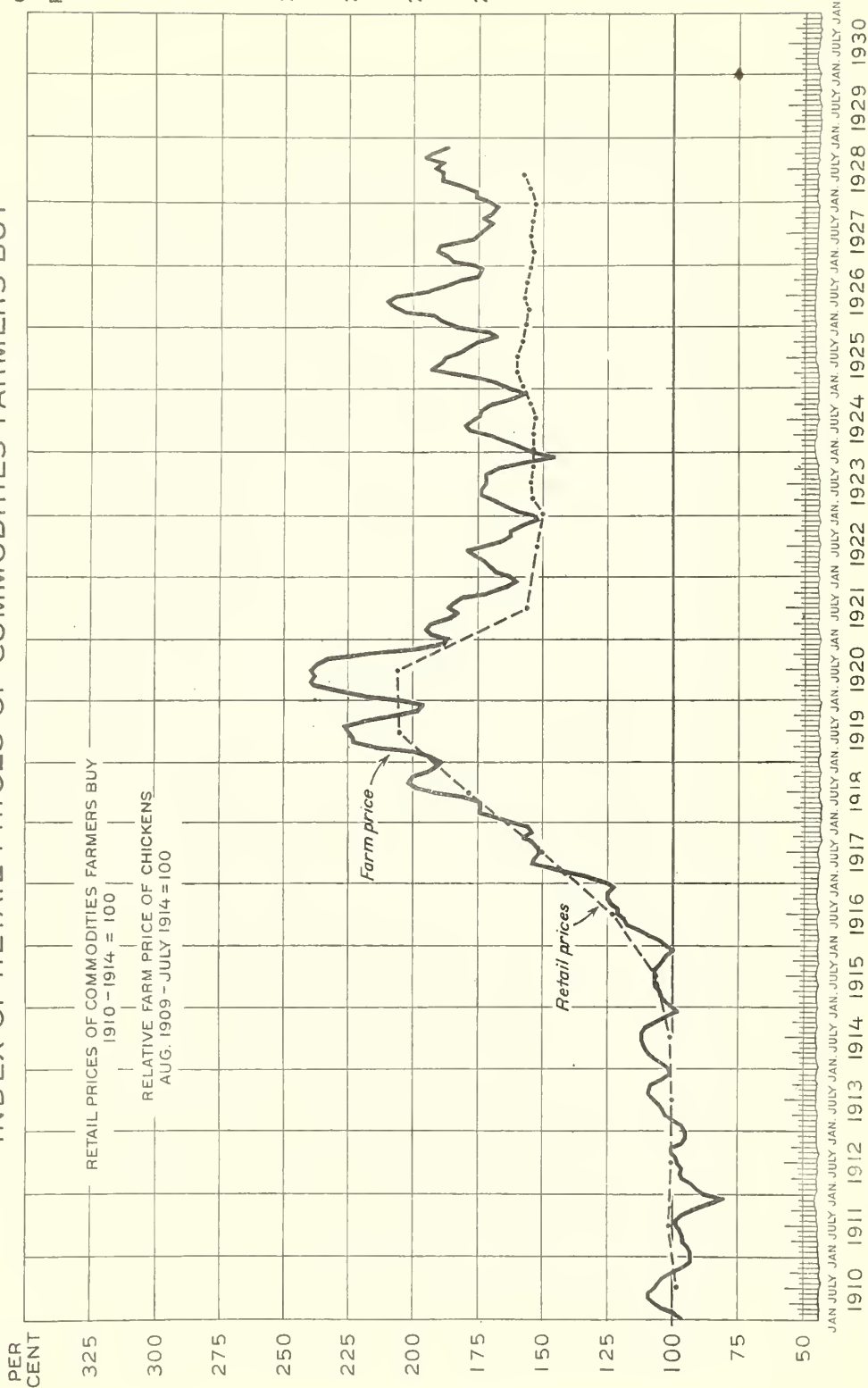
PER CAPITA CONSUMPTION OF DAIRY PRODUCTS IN THE UNITED STATES 1917-1927



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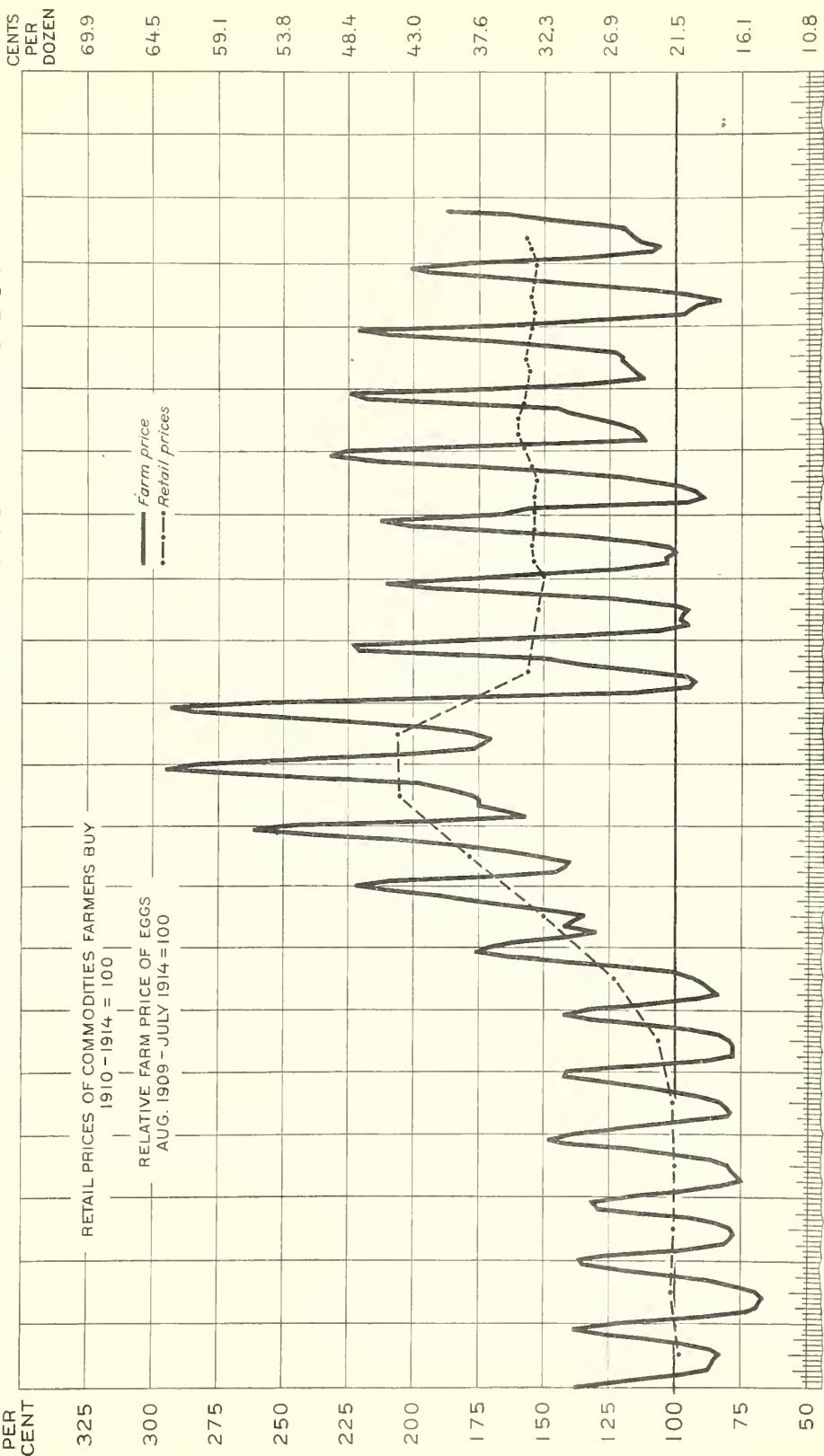
CENTS
PER
POUND



U. S. DEPARTMENT OF AGRICULTURE

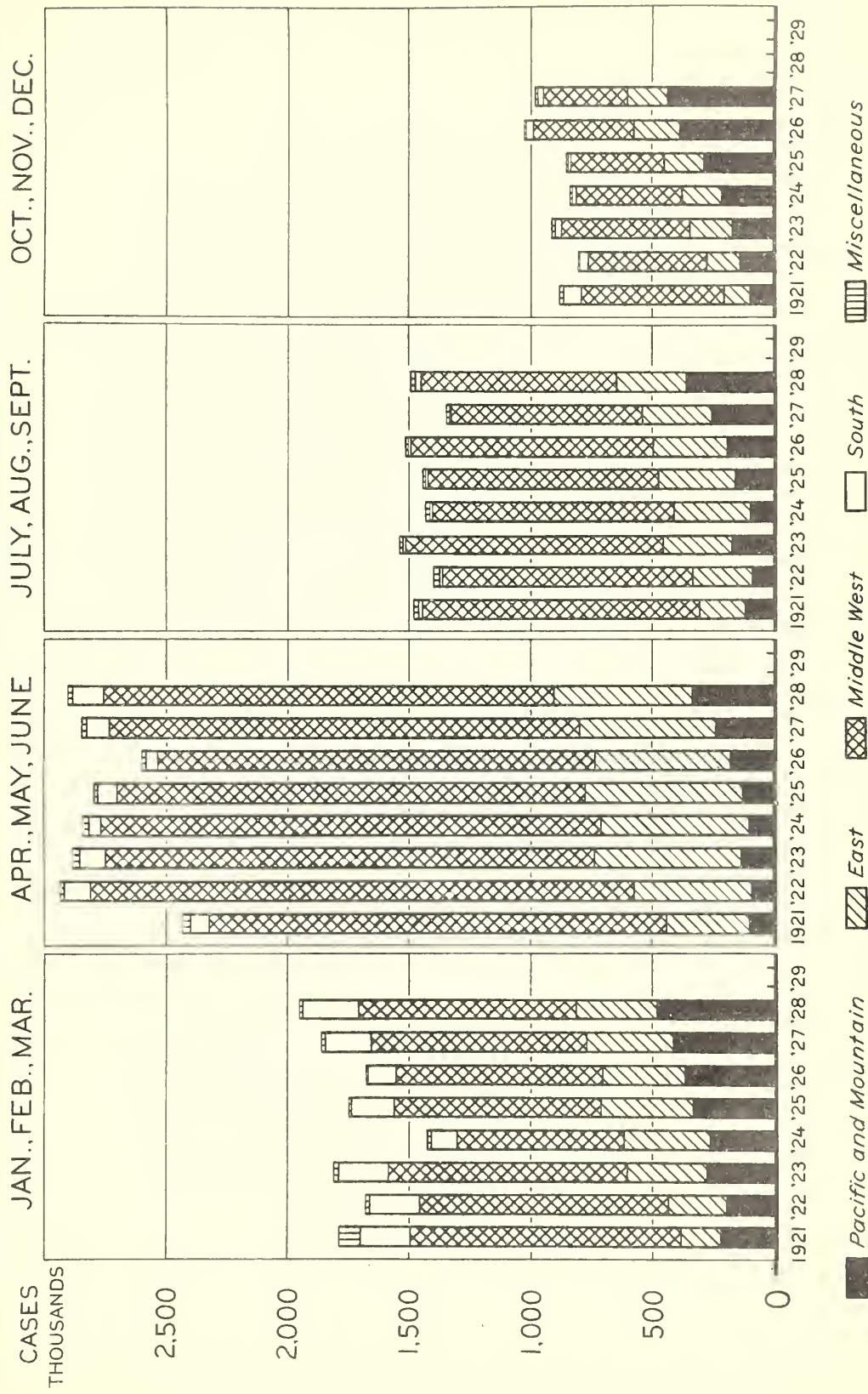
BUREAU OF AGRICULTURAL ECONOMICS

FARM PRICES OF EGGS



BUREAU OF AGRICULTURAL ECONOMICS

SEASONAL RECEIPTS OF EGGS AT NEW YORK BY REGIONS OF ORIGIN, 1921-1928



EGGS: NEW YORK WHOLESALE PRICES BY GRADES MONTHLY, 1925-1928



CASE EGGS: COLD-STORAGE HOLDINGS, NET MOVEMENT INTO AND OUT OF STORAGE, AND NEW YORK PRICE, 1925-1928

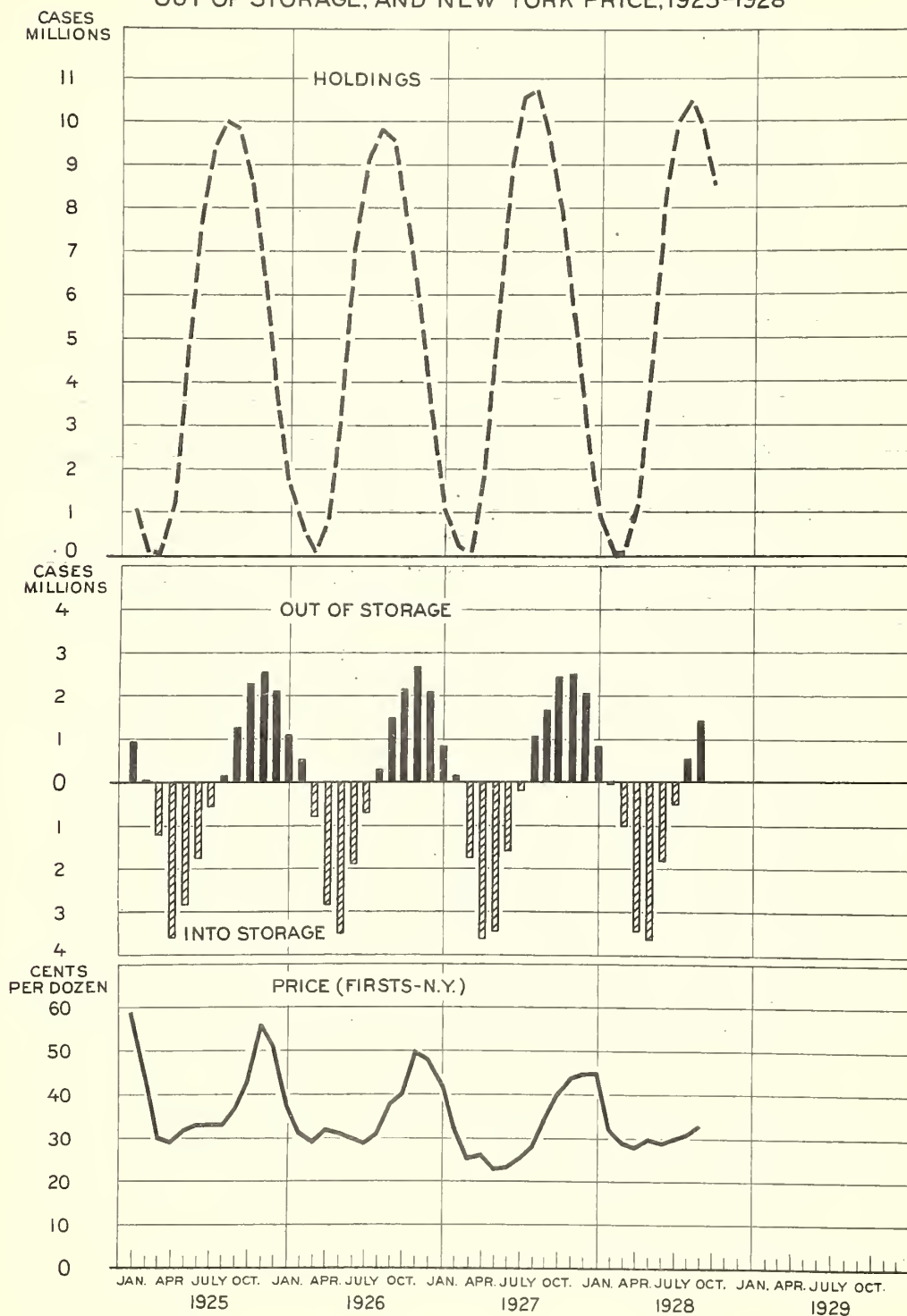


CHART DISCUSSION AND INTERPRETATION

BEEF CATTLE

1. Number of Livestock by Classes. 1921-1928.

The number of all Cattle has been steadily decreasing since 1922, the number in 1928 being somewhere near the low point of the cattle cycle. The number of hogs increased during the years 1927 and 1928, after decreasing during the years 1923-26. The number of Sheep is gradually increasing in the United States, but the number of milk cows have remained rather constant since the War. The number of horses continues to decline with the number of mules remaining about stationary.

2. Number of Cattle on Farms and Receipts at Important Markets. 1870-1928.

Since 1870 the trend in the numbers of cattle on farms has been upward, but with rather definite cycles evident. The last cycle in numbers of cattle on farms started from a low point in 1912 and reached the peak about the year 1918. Since 1918 a steady decline in numbers of cattle on farms has taken place, the number in 1928 being about the same as the number in 1912. Receipts of cattle follow in general the same cycles as number of cattle, except in times of unusual depression in the cattle business such as during 1922 to 1925. During that period much breeding stock and many entire herds were sent to market due to financial stringency, therefore making the receipts greater than they otherwise would have been.

3. U. S. Price of Cattle and Price of Steers at Chicago. 1878-1927.

Three rather well defined complete cycles are evident in the prices of cattle and steers in the United States between the years 1880 and 1921. The cycles are quite similar in the farm prices of cattle and Chicago prices of steers, except that the farm price general fluctuates more violently than the Chicago price. The first cycle started in 1880 and ended in 1888; the second in 1888 and ending in 1903; the third starting in 1903 and ending in 1921. Since 1921 cattle prices have been traveling upward on another cycle, reaching rather high levels in 1927 and 1928. Producers should consider the rather assured downward trend which will undoubtedly take place in the price cycle when contemplating increasing their cattle business. The principle factor responsible for these cycles in prices is the fluctuations in market receipts of steers which runs in cycles opposite to the price cycles; that is, large receipts produce a relatively low price and vice versa.

4. Relation between Price and Supply of Cattle at Chicago, 1890-1928.

The price of cattle at Chicago has shown a marked rise since the year 1926, the average price for good beef steers for 1928 being over \$14.00 per cwt. The greatest factor regulating the price of steers is the supply coming on the market. Eliminating fluctuations in the general price level, the lower portion of the chart indicates that for three years just after War, the volume of receipts of beef steers determined whether the price was low or high. The lower the receipts, the higher the price. The increases in prices for the years 1927 and 1928 was mainly caused by appreciable decreases in receipts.

5. Receipts and Prices of Western Range Cattle, Chicago, 1878-1927.

As a general rule the number of western range cattle coming on the market determines the average price for which they sell. The cycles in cattle prices are shown by the dotted line in this chart, the position in 1927 being advanced quite high in an upward trend in a cycle. The receipts of range cattle is generally inverse to the price level, low receipts giving high prices and vice versa. In 1927 the receipts were at a comparatively low figure, and for 1928, not shown on this chart, remained near this low level. Prices of western range cattle fluctuate similar to other beef cattle prices at Chicago.

6. Factors Affecting the Price of "Good" Beef Steers. 1907-1928.

The price of beef steers is regulated to a great extent by a small number of factors which can be isolated and pointed out. The day to day market fluctuations, of course, are controlled by day to day conditions at the market, but the major trends in the prices of steers are directly the result of measurable conditions. This chart indicates that the supply of steers is the principle factor regulating price. Other factors which are of importance are (1) business conditions, (2) general price level, (3) price of hogs, and (4) price of corn. The recent rises in the price of beef steers can be attributed mainly to the decreased supply of cattle, especially long-fed steers, with business conditions good.

7. Beef Steers Sold out of First Hand at Chicago for Slaughter.

(Western Steers not Included). 1922-1928.

The price of choice and prime steers fluctuates more violently than the prices of the lower grades. The seasonal fluctuations in prices of the different grades are determined to a great extent by the receipts of the different grades. The supply of common steers is generally the heaviest when the supply of choice and prime is lightest. All the grades follow the same general trend, with the medium grade showing the least fluctuations.

8. Retail prices of Fresh Beef, Chicago, 1921 to date.

The general trend in retail prices of fresh beef since 1921 has been upward for all cuts. Certain cuts are in greater demand than others and therefore command a higher price from the consumer. Chuck roast generally sells for only about half the price of sirloin steak, with rib roast and round steak selling at about the same price in Chicago, as this chart indicates. During the spring of 1928 retail prices of all cuts increased very rapidly and reached the highest levels since the war. Prices which consumers are willing to pay for beef is reflected back into the prices which the farmer receives for his beef cattle sold on the market. The small number of beef cattle coming on the market during 1928 was not enough to fill the demand at the lower price levels and so prices increased.

9. Average Prices of Stocker and Feeder Steers Shipped from Chicago.
1922-1928.

The average prices of stocker and feeder steers follows the same general trend as the prices of beef steers, although they fluctuate less violently. Heavy stockers and feeders sell for appreciably higher prices than the light weights. In general the highest seasonal price prevails in the spring and the lowest in the late fall, the greatest receipts coming on the market in the fall and the least in the Spring.

HOGS

1. Prices of Heavy Hogs at Chicago, 1890-1928.

This chart shows the prices of hogs in detail. The prices are shown month by month for each year since 1890. In addition, a line showing the smooth trend of prices has been drawn through the monthly prices averaging out the seasonal variations. This chart shows clearly the tendency of hog prices to swing in cycles first low and then high. It also shows that during these 38 years there has been a tendency for every other advance in price to be a big one and for the intermediate cycles to be less marked.

2. Corn-Hog Ratio 1912 to Date.

This chart helps explain why hog production has changed from time to time as it has in the past. This shows the number of bushels of corn which could be bought with 100 pounds of hogs from month to month since 1912. At some times during this period 100 pounds of hogs would sell for as much as 18 bushels of corn would sell for, whereas at other times 100 pounds of hogs would not sell for as much as 8 bushels of corn would sell for. On the average, 100 pounds of hogs sells for about as much as 11 bushels of corn. When hogs sold higher than that, as in 1921 and 1922, or in 1925-26, producers tended to increase hog production, whereas when hogs sold lower than that, as in 1923-24, or in 1928, producers tended to decrease production.

3. Factors Affecting the Price of Hogs.

This chart shows the actual price of hogs from month to month through the past 20 years. In addition, the legends indicate the various important reasons for changes in hog prices at particular periods. (Of course the factors mentioned are not the only factors which affect hog production at any one time. This illustrates some of the many factors which affect hog prices and the extent to which general conditions and other industries affect the price of hogs as well as the supply of hogs alone.

4. Total Weight of Hogs Slaughtered Yearly Under Federal Inspection and Hog Prices.

In addition to the number of hogs slaughtered their average weight also affects price since it is pounds of pork and not number of hogs which the consumer is interested in. This chart shows the relation between the total weight of hogs slaughtered in each hog year as shown along the bottom parts of the chart and the average price paid for the hogs by packers. Thus in 1925, for example, there were about 9 billion 700 million pounds of hogs slaughtered and packers paid an average price of a little over \$12 for them; whereas in 1923 with eleven billion 800 million pounds of hogs slaughtered, packers paid an average price of only about \$7.50 per cwt. This chart also illustrates how closely changes in the weight of hogs slaughtered during the year are reflected in hog prices. Although the number of hogs produced is not the only factor involved, it is one of the most important factors which affect hog prices.

It is also interesting to note that the more hogs are produced the less they are worth on the average. Thus a production of 10 billion pounds of hogs selling at an average price of about 11¢ per pound as indicated by the line which shows the average relationship between supplies and price,

would sell for a little over 1 billion 100 million dollars on the average, whereas a production of 12 billion pounds of hogs selling at an average price of less than $7\frac{1}{2}\phi$ per pound would be worth less than 900 million dollars. Apparently the more hogs that farmers produce the less total value they get for them.

5. Corn-Hog Ratios and Hog Marketings 1904-1928.

This chart shows in the upper part the corn-hog ratio with the periods when hogs were unusually high in price compared to corn colored light, and the periods when hogs were unusually cheap compared to corn colored dark. The lower part of the chart shows the changes in hog marketings with the seasonal variation taken out. Comparing the upper part with the lower it is quite evident how the changes in the relative profitableness of hog production caused corresponding changes in hog receipts a year or two later; thus the profitable prices for hogs in 1906 caused increased marketings through the latter part of 1907 and 1908. The relatively low prices for hogs in 1908 in turn caused reduced marketings in late 1909 and in 1910. Since the war the same comparisons are evident. The relatively high prices in 1921 caused increased marketings in 1923-24. The very unfavorable prices in 1923-24 caused decreased marketings in late 1925-26. The resulting favorable prices in 1926 in turn caused increased marketings in late 1927 and in 1928.

6. Hog Prices and Slaughterings Since 1840.

The dotted line on this chart shows the changes in the average yearly price of hogs for the past 90 years. During the whole of this time hog prices have always been changing from time to time, tending to reach a high point over three to five years, swinging down in the next year or two, and then swinging up to another high point. The swings in prices have been just as marked during the last few years as they had been in earlier years. Apparently whatever force caused the recurring swings in hog prices - the hog price cycle as it has been called - is still at work.

The solid line shows the changes in the number of hogs slaughtered each year. It is evident that the high price points, such as in 1910, correspond to the low production points, whereas the low price points, such as in 1908 or in 1923 correspond to the high production points. To understand what caused the cycle in hog prices it is necessary to know what causes the cycle in hog production.

7. Hog Marketings and Hog Prices 1905-1928.

This chart shows in more detail the relation between hog prices and hog marketings. The line at the top shows the price of hogs month by month with the trend line drawn through to take out the seasonal variation. The bars at the bottom show the number of hogs received at markets during the 12-month period ending in October of each year - the hog year. The extent to which large receipts and low prices and low receipts and high prices tend to coincide is remarkable. Thus from 1906 to 1908 receipts increased from about 24 million to 26 million; prices meanwhile fell from a \$6.50 level to a \$5.00 level; then receipts decreased to below 20 million by 1910, while prices advanced to a \$9.00 level. The same thing is notable since the war, receipts decreasing from about 40 million in 1924 to about 28 million for 1926. Prices meanwhile advanced

from below \$8.00 to over \$12.00. While supplies are the largest factor that affect price, they are not the only factor. Thus in 1927 supplies were no larger than in 1926, yet prices fell more than \$2.00. One of the reasons for this is discussed in connection with the chart on export demand.

8. Corn Belt Pig Crop and Hogs Slaughtered 1922-1928.

This chart shows the extent to which farmers' reports of the size of the pig crop in the corn belt may serve as an indication of the slaughter of hogs during the subsequent marketing year; thus the top part of the chart compares the number of pigs reported farrowed in the spring with the number of hogs slaughtered the following winter from November through May. The solid black bars show the hogs to be slaughtered as estimated from the reports of the number of pigs farrowed, while the dotted bar shows the number actually marketed.

The middle part of the chart compares the changes in the fall peak crop with changes in the number of hogs slaughtered the following summer from June to October. For both the spring crop and the fall crop it is evident that there is a general agreement between changes in the numbers reported farrowed and changes in the number slaughtered. When, however, the spring crop and fall crop are combined to give the total crop for the year, as shown in the bottom part of the chart, and then this total crop for the year is compared with the number of hogs slaughtered from November through the following October, even closer agreement is found. Thus in 1922, approximately 51 million hogs to be slaughtered were indicated by the pig surveys, while actually 52 million were slaughtered. A slaughter of 53 million was indicated by the pig crop of 1923, the actual slaughterings fell just a trifle lower. In 1924 agreement was not so close. A good many farmers misinterpreted one of the questions on the report which led to an underestimate of the size of the crop. In subsequent years, however, the pig survey has again served as a fairly accurate indication of the number of hogs to be marketed, the greatest difference about three million hogs occurring this last year.

The latest reports show that there was a small reduction in the number of pigs farrowed in the spring of 1928 from the number farrowed the previous spring; whereas the report for this fall also shows a slight reduction in the number farrowed. These indicate that there will be fewer hogs to come to market during the season of 1928-29 than were marketed in the corresponding period of a year earlier.

9. Seasonal Change in Hog Marketings.

This chart shows the differences in the average number of hogs received from month to month through the year both for pre-war and post-war years. From this chart it is quite evident that December and January, the months of lowest prices are usually the months of largest receipts, whereas September, which usually shows the highest average prices for any month is also usually the month of lowest receipts.

10. Seasonal Change in Hog Prices.

This chart shows the average changes in hog prices both before the war and since the war. In both periods hog prices were usually at their lowest in December; advanced to a spring peak in March or April, declined somewhat in mid-summer, and then made a fall peak, usually in September or October, then started the decline to the winter low. In individual years the movement of prices varies quite widely from this -- this chart merely shows the average or usual change when supplies of corn and numbers of hogs are both fairly normal.

11. Hog Prices and Exports of Pork and Pork Productions, 1916-1928.

This chart shows one of the reasons why hog prices were so low in 1927. The dotted line on the chart shows the exports of hog products month by month each year since 1916 in per cent of the average monthly exports before the war. It is evident how much the war demand increased exports of hog products, monthly exports in 1918 and 1919 rising to as much as five times the average pre-war exports. Exports fell off sharply in 1919, then recovered somewhat in 1921, and in 1922 and 1923 reached a level of 200 to 250 percent of the average pre-war exports. The solid line shows hog prices during the same period also stated in percent of the pre-war average. Comparison of this line with the exports gives some idea as to the strength of export demand. Thus in 1918 and 1919 hog prices were more than twice as high as before the war. The fact that exports were also high at the same time showed the urgent demand for our hog products abroad. In 1922 and 1923 on the contrary, hog prices were down to the pre-war average and it was only because hogs were so cheap that Europe could afford to take as large exports as they did. In 1924, 1925, and 1926 as hog prices advanced, exports declined, coming down almost to the pre-war level. In 1927, however, when hog prices declined, and exports showed no increase in spite of the reduced hog prices. Exports continued to trend downward through 1927 and in 1928 in spite of the fact that hogs were at the lowest prices since 1924. This weakness in the foreign demand for our hog products reflected the fact that European countries had made marked increases in their hog production in the period since the war and in 1927 were able to take care of most of their own needs. The increase in foreign production reduced the demand for our products and resulted in the decreased export demand.

In 1927 and 1928, however, foreign hog prices were not sufficiently attractive to stimulate further increases in production abroad, and even some decrease seems probable. This may lead to a better export demand for hog products in 1929.

SHEEP

1. Cycles in Sheep Prices and Numbers. United States 1885-1928.

The prices of lambs and sheep move through rather definite cycles. These price cycles are mainly caused by the cycles in the numbers of sheep. These cycles are generally about 8 to 10 years in length. The lower half of this chart indicates that receipts fluctuate in the same general direction as the fluctuations in numbers of sheep. The bottom of the price cycle occurred around 1921. Since that time the trend in price has been upward, reaching rather high levels the last 3 years. Receipts since 1922 have also been increasing, indicating an increase in demand.

2. Number of Sheep in Important Countries. 1900-1927.

No country has shown any great increases in numbers of sheep since the war except Australia, which has the largest number of sheep of any country and exports the most wool. Since 1915 the number of sheep in Australia has had a definite trend upward, increasing from about 70 million to about 93 million in 1927. In New Zealand and South Africa, other important wool exporting countries a gradual rise is evident in the number of sheep. Data on the number of sheep in Argentina are not available, but the exports of wool has tended to increase in recent years. The number of sheep and the production of wool in other countries does not affect the price of lambs in the United States only as the price of wool affects the price of lambs. United States exports very little lamb meat.

3. Farm Price of Lambs and Index of Retail Prices of Commodities Farmers Buy. 1910-1928.

The general level of lamb prices since 1921 has been appreciably above the level of retail prices of commodities farmers buy, on the basis of pre-war relations. During the last 4 years the index of lamb prices has been fluctuating around 200, while the index of retail prices has been about 155. Lamb producers therefore have been in a relatively favorable position in comparison with other agricultural groups. The trend in lamb prices since 1922 has been distinctly upward, with a rather distinct seasonal fluctuation normally occurring. In general lamb prices are relatively high in the spring, the period of light receipts, and low in the fall, the period of heaviest receipts.

4. Sheep and Lambs: Weekly Average Price and Monthly Slaughter at Chicago. 1920-1928.

In general, lamb prices fluctuate according to the number of sheep and lambs coming on the market. High receipts depress the price and low receipts cause the price to rise. Lamb prices have a rather definite seasonal fluctuation in normal years. Low receipts during the first few months of the year cause a comparatively high price to prevail while high receipts in the summer and fall months bring about comparatively low prices. The figures for "sheep and lambs" includes only about 10 percent sheep, about 90 percent being lambs. Since 1920 the general trend of both slaughter and prices has been slightly upward, indicating an increase in demand for lamb.

5. Sheep and Lambs: Origin of Market Receipts by Months. 1925.

The sources of sheep and lamb receipts for all public stockyards in the United States varies according to the season of the year. About 90 percent of "sheep and lamb" receipts are lambs. During the first 5 months of the year winter fed lambs from Colorado and Nebraska come onto the markets in great numbers. During June, July, August, September and October, lambs from Nevada, Oregon, Idaho and Washington or "western" lambs are important on the market. The Corn belt markets lambs throughout the year, but the greatest number in the fall months. California lambs are marketed principally in May, while during June, July and August many originate in the central and eastern mountain states of Virginia, West Virginia, Kentucky, Tennessee, Arkansas and Missouri. The greatest total receipts occur in the months of September and October, with the late spring having the lowest receipts.

6. Effect of Production on the Price of Lamb. 1907-1928.

The greatest single factor determining the price of lamb is the amount of lamb available for consumption. As a rule the greater the supply of lamb for consumption the lower the price of lamb. Since 1922 the pounds of lamb slaughtered per capita has been gradually increasing, but the wholesale price of dressed lamb has been rather uniform, indicating some increase in demand. Previous to the war the per capita slaughter of lambs was much higher than at present, the rapid decline taking place between the years 1912 and 1917.

7. Wool Production, Net Imports and Apparent Consumption.

United States 1870-1927.

Since 1870 the imports of wool into United States has been gradually increasing, with United States production remaining rather stable around 300 million pounds since 1885. Since 1923 wool production in the U. S. has been increasing rather rapidly. At the present time we import about the same amount of wool that we produce, the fluctuations in consumption being mainly caused by fluctuations in imports. Wool consumption in the U. S. has had a pronounced upward trend since 1898, being greatest in the war years.

8. Farm Price of Wool and Index of Retail Prices of Commodities

Farmers Buy. 1910-1928.

Since 1922 the farm price of wool has been appreciably above the level of retail prices of commodities farmers buy on the basis of pre-war level indicating that the wool growers have been in a relatively favorable position in comparison to some other agricultural groups. The price of wool reached very high levels during the war, and decreased to a very low level in 1921. During 1928 the price of wool returned to the level of the years 1923-25, after being relatively low during 1926 and 1927. No distinct seasonal price trends are evident in the price of wool. However, the price has a tendency to decrease in the fall months and increase during the winter during some years. The general level of prices of wool in the United States is governed to a considerable extent by the production of wool outside United States, this country importing about one half the wool consumed.

9. Wool Prices and Imports. January 1921 to date.

The price of wool in Boston is generally higher than the price of a similar grade in London. Imports of combing and clothing wools, or wools of fine grades, takes place each month, but is greatest in the first four months of the year. The volume of these fine wools imported depends to some extent upon the spread between the London and Boston price. When the spread is wide, imports tend to increase and if narrow, imports decrease. Wool prices in United States follow the London price in general, and the level of prices in U. S. is determined to a great extent by wool production in other countries, principally Australia, New Zealand, Argentina and South Africa.

HORSES & MULES

1. Horses: Number on Farms and Adjusted Farm Price. 1867-1928.

The number of horses on farms in the United States reached the peak in 1918 and 1919 and since that time has been rapidly declining. The number in 1928 was about the same as the number in 1890 and the decline shows no signs as yet of a let-up. The cycle in numbers of horses is not well defined, and the factors which have contributed to the decline since 1918 are different than those causing the small decline starting 1895. Two very distinct cycles in horse prices are evident since 1867, the low point ending the first cycle coming at 1896 and the high point of the second cycle in 1911. It is likely that the fluctuations in the prices of horses before 1910 was caused primarily by the fluctuations in demand, the number on farms showing no violent decreases or increases which would materially affect the price. It may be significant that the farm price for 1926 and 1927 has turned slightly upward, indicating perhaps some future improvement in horse prices. The price in 1925 in terms of all commodities was the lowest since 1868.

2. Farm Price of Horses by Age Groups. Jan. 1, 1894 to date.

The farm price of mature horses reached its lowest point in 1925 and has had a slight tendency upward since that time. In general the prices of yearlings and colts under one year old fluctuate similar to the price of mature horses, except for an increasing spread during the period of high prices between 1910 and 1915. As the average age of all horses and farms has been steadily increasing within the last few years, the time will undoubtedly come when colts and young stock will be in greater demand than at present and all horses will increase in price.

3. Farm Prices of Mules by Age Groups, Jan. 1, 1894 to date.

The farm price of mules reached its highest point in 1920, rising steadily during the war period, when the price of horses was on a decline. This difference in price trends between horses and mules was mainly due to the fact that mechanical power was not substituted for mules on farms in the South as it was for horses on farms in the North. Increases in crop acreages and high prices of cotton in the South brought about a good demand for mules during the war period. In general the prices of mule colts and yearlings moved similar to the price of the older animals, with the upturn in the price of mules 2 years old and over coming between 1927 and 1928 and not in 1925 as in horses.

DAIRY CATTLE AND PRODUCTS

1. Cows, Heifers and Calves Being Kept for Milk Cows.

U. S. January 1, 1920 - January 1, 1928.

After decreasing in 1926 and 1927, the number of cows and heifers 2 years old and over being kept for milk showed a slight increase for 1928. The number of calves under one year and heifers one to two years old show an appreciable increase for both 1927 and 1928. As the heifers one to two years old will be milk cows in 1929, an increase in cows and heifers over two years old is indicated. As calves under one year old will be heifers one to two years old next year, an increase in heifers for 1929 is indicated. In general, dairymen are tending towards saving more young dairy stock, which indicates some increase in the number of dairy cows.

2. Yearly Production of Creamery Butter by Regions.

United States 1918 - 1927.

All regions as shown in this chart had appreciable increases in butter production with the exception of the Northeast region, which shows a decrease. The great percentage increases occurred in the Southern States, although as yet their total production is not relatively large. The central corn belt and the central dairy region of the country produces the most butter. Production in the Pacific States has had only a comparatively small increase, but that for the mountain states has increased steadily since 1920. It should be remembered that this chart is made on an logarithmic scale and the slope of line shows the percentage change from one year to another, with actual values shown in the scale at the left.

3. Farm Prices of Butter and Index of Retail Prices of Commodities

Farmers Buy. 1910-1928.

On the basis of pre-war levels, the farm price of butter has been slightly higher since the war than the retail prices of commodities farmers buy. The trend during 1927 and 1928 has been towards higher levels. The seasonal price of butter is rather uniform for each year, the highest price coming in November and December and the lowest usually in June and July. A tendency is evident towards a narrowing of these seasonal fluctuations from high to low since the war, the variation in 1928 being of a rather minor character.

4. Average Farm Price of Butterfat in Selected States and the

United States. Monthly 1925-1928.

The farm price of butter in New York and Minnesota, as representing two important dairy producing regions, is appreciably higher than the average price for the United States. The farm prices in Mississippi and Nebraska, respectively representing deficit and surplus states, are lower than the United States Average. In Mississippi comparative low quality of butter marketed has been one of the principle reasons for this low price. Everything else being equal, the price in Mississippi should be higher than in many other states, being on a deficit basis in butter production.

The spread between the Nebraska farm price and U. S. farm price has been narrowing in the last three years, indicating more efficient marketing and higher quality of butter. The farm price in Idaho is normally about the same as the U. S. average, the high 1925 price being the result of a temporary local condition on the Pacific coast. All of the states have approximately the same seasonal variation in price. The year 1928 was a rather favorable year for butter as compared with the previous two years, the price not dropping nearly so low in the summer months.

5. Creamery Butter: Cold Storage Holdings, Net Movement into
and Out of Storage, and New York Price, 1925-1928.

Creamery butter goes into storage during the months of May, June, July and August, the months of high production. It is then taken out of storage all of the remaining months, with generally the heaviest withdrawals during the months of November and December, when usually the highest prices prevail. The difference between the prices prevailing when butter goes into storage and when it comes out determines the profits in storage. In the last three years the spread between the low and high seasonal prices has been narrowing, being especially true in the year 1928.

6. Monthly Average Prices of Butter in Great Britain & New York,
and Total Monthly Imports and Exports of Butter into United
States. January 1921 to date.

In general, both exports and imports have been comparatively negligible quantities in the butter industry of the United States since 1924. The spread prevailing between the New York price and the price in Great Britain is the factor influencing imports into United States. As a rule, when the price of best Danish Butter in Great Britain is low compared to the price of butter in New York, imports tend to increase. This spread is generally greatest in the late fall months. The present United States tariff of 12 cents per pound on butter in most seasons is more than the spread between the New York and Great Britain price and discourages imports. When the price in Great Britain rises appreciably above the New York price, the United States exports increase, as was the case in 1922 and 1924.

7. Per Capita Consumption of Dairy Products in the United States.
1917 - 1927.

The per capita consumption of dairy products in the United States has tended to increase in the last ten years. The great increase has occurred in whole milk, with condensed milk a close second. Per capita consumption of butter and ice cream has been gradually increasing since the war, with cheese and condensed milk showing very small decreases for the years 1926 and 1927.

POULTRY AND EGGS

1. Farm Price of Chickens and Index of Retail prices of Commodities Farmers Buy. 1910-1928.

Since the War the farm price of chickens has tended towards relatively higher levels than was the case before the War. Since 1924 the relative price of chickens has been higher than the index of retail prices of commodities farmers buy, indicating to some extent the increasing profitability of selling chickens for market. A distinct seasonal is evident in the price of chickens, being highest in the late spring and lowest in the late fall months. The purchasing power of chickens in terms of commodities farmers buy is higher now than it was before the war.

2. Farm Prices of Eggs and Index of Retail Prices of Commodities Farmers Buy. 1910-1928.

The farm price of eggs fluctuates violently from season to season, the highest prices generally coming in December and the lowest in March and April. Since 1924 a downward tendency is evident in the December prices of eggs, being perhaps a normal function of the cycle movement, which reached its peak in 1924. The level of prices of eggs is lower relatively than the price of chickens, from a pre-war base. The purchasing power of eggs in terms of commodities farmers buy is about the same now as before the war.

3. Seasonal Receipts of Eggs at New York by Regions of Origin, 1921-1928.

A large proportion of the eggs coming on the New York market originate in the middle-west. Receipts during April, May and June are the greatest of any season, many of these eggs going into storage in New York. Receipts from the South are of very minor importance in all seasons, but are heaviest during January, February and March. A marked increase has occurred in receipts at New York of eggs from the Pacific and Mountain states during all seasons, these eggs being mainly of high quality from California. During October, November and December, the period of highest seasonal prices, from 40 to 50 percent of the receipts at New York originate in the Far-western states.

4. Eggs: New York Wholesale Prices by Grades. Monthly 1925-1928.

Great differences in prices prevail for different grades of eggs on the New York market. Nearly white extras and Pacific Coast Extra always sell for higher prices than other grades. Western mixed colors - extras is the higher quality eggs from the middle-west, with the Western mixed colors - firsts being of lowest quality from the middle-west. A large spread exists between the two prices of mid-western eggs, sometimes amounting to over 10¢ per dozen. Care in gathering and handling by the farmer, with more careful grading would be profitable, the resulting eggs going into the higher grade and commanding a better price on the market. March, April, and May are the months of lowest prices, with October and November generally the highest. The prices of the lower quality western eggs in October, 1928 was just one-half the price of the highest quality eggs on the New York market.

5. Case Eggs: Cold Storage Holdings, Net Movement into and out of Storage, and New York Price, 1925-1928.

Eggs move into storage during the months of March, April, May, June and July, and out of storage all other months. The peak of storage holdings occurs in July, all of these eggs going from storage by the following February. Eggs are put into storage during the period of surplus production and low prices, and are taken out of storage during the season of low production and comparatively high prices. The rather small seasonal rise in egg prices during the fall of 1928, due to unusual fall production, made the storage of eggs for the season a comparatively unprofitable business.

